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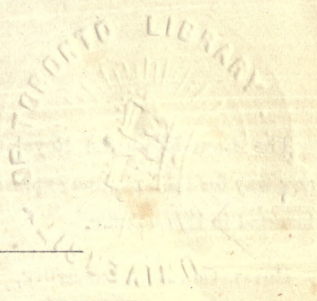
PROCEEDINGS

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VOLUME THE FIFTH.

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WATTS, HENRY E., Marlborough Chambers, 49, Pall Mall, S.W.
WEATHERLEY, CAPTAIN F. A. (late 6th Dragoon Guards), 16, Lewes Crescent, Brighton.
WEBB, WILLIAM, Newstead Abbey, Nottingham.
WELLINGS, HENRY, New Travellers' Club, George Street, Hanover Square.
WESTGARTH, WILLIAM, St. Andrew's House, Change Alley, E.C., and 10, Bolton Gardens, S.W.
WHITE, ROBERT, Riche's Court, Lime Street, E.C.

- WIGGINS, FREDERICK A., 9, Porchester Terrace, Hyde Park.
WILLS, GEORGE, White Hall, Hornsey Lane, N., and 26, Budge
Row, E.C.
WILLIAMS, W. J., Clarence Club, 1, Regent Street, W.
WILLIAMSON, GEORGE, 2, East India Avenue, E.C.
WILSON, EDWARD, Hayes, Kent.
WINGFIELD, SIR CHARLES, K.C.S.I., 3, Park Street, Grosvenor
Square, W.
WINGROVE, E. W., South End House, Twickenham.
WINGROVE, R. P., 24, Abbey Place, St. John's Wood.
WOLFEN, AUGUSTUS, 8, Philpot Lane, E.C.
WOLFF, SIR HENRY DRUMMOND, K.C.M.G., M.P., 4, St. James's
Place, S.W., and Boxcombe Tower, Ringwood, Hants.
WOOD, F. A., Willesden, N.
WOOD, J. DENNISTOUN, 2, Hare Court, Temple, E.C.
WRAY, LEONARD, Eagle Lodge, Ramsgate, and 13, Alfred Place
West, South Kensington, S.W.

YOUL, JAMES A., C.M.G., Waratah House, Clapham Park.
YOUNG, ADOLPHUS W., M.P., 14, Pall Mall, S.W.
YOUNG, FREDERICK, 5, Queensberry Place, South Kensington, S.W.

NON-RESIDENT FELLOWS.

- ABBOTT, J. J. C., Q.C., Montreal, Canada.
ACHESON, FREDERICK.
ALBERGA, D. J.
ALLAN, THE HON. G. W., Moss Park, Toronto, Canada.
ALLAN, SIR HUGH, Montreal, Canada.
ANDERSON, DICKSON, Montreal, Canada.
ARCHER, A., Queensland.
ARMYTAGE, GEORGE, Victoria, Australia.
- BEERE, D. M., New Zealand.
BERKELEY, T. B. H., M.L.A., St. Kitt's.
BIRCH, A. N., Straits Settlements.
BIRCH, W., Lake Taupo, and Napier Club, Napier, New Zealand.
BIRCH, W. J., Florence, New Zealand.
BLACK, ROBERT, Natal, South Africa.
BLYTH, CAPTAIN, Transkeian Territory, South Africa.
BOURINOT, HON. J., Ottawa, Canada.
BOURINOT, J. G., Clerk of the House of Commons, Ottawa, Canada.
BRADSTREET, ROBERT, Natal, South Africa.
BREEKS, J. W., Commissioner, Ootacamund, Madras.
BRODRIBB, W. A., Victoria, Australia.
BRODRIBB, W. A. (JUNR.), Cape Civil Service, Cape of Good Hope.
BROUGHTON, J., Quinologist, Ootacamund, Madras.
BROWN, THE HON. THOMAS, Bathurst, River Gambia.
BULWER, HON. HENRY EARNEST LYTTON, C.M.G., Governor of Labuan.
BURKE, SAMUEL CONSTANTINE, Assistant Attorney-General, Jamaica.
BURNS, A., Halifax, Nova Scotia.
BUSHBY, T., Victoria, British Columbia.
BUTLER, MAJOR W. F., C.B., (late 69th Regiment).
BUTTON, EDWARD, Transvaal Republic, South Africa (care of S. B. Garrard, Esq., 57, Westbourne Grove, W.)
- CAMPBELL, HON. C. J., Halifax, Nova Scotia.
CAMPBELL, CHARLES J., Toronto, Canada.
CAMPBELL, W. H., LL.D., Georgetown, British Guiana.
CARON, HON. ADOLPHE P., M.L.C., Quebec.
CATTANACH, A. J., Toronto, Canada.
CHINTAMON, HURRYCHUND (Political Agent for Native Princes).
CHARNOCK, J. H., Lennoxville, Quebec.
CHASE, HON. J. CENTLIVRES, M.L.C., Cape of Good Hope.
CHIAPPINI, DR., Cape Town, Cape of Good Hope.

CLARK, COL. SIR ANDREW, K.C.M.G., C.B., R.E., Governor of the Straits Settlements.

CLEGG, THOMAS, West Coast of Africa.

COGHLAN, WILLIAM MARCUS, Bombay (care of Crawford, Colvin, and Co., 71, Old Broad Street, E.C.)

COLLIER, CHARLES FREDERICK, Barrister-at-Law, Tasmania.

CORNWALL, CLEMENT FRANCIS, Ashcroft, British Columbia.

CORNWALL, HENRY, Ashcroft, British Columbia.

CRAUFORD, CAPTAIN F., R.N., River Plate, Brazil.

CREASE, HON. MR. JUSTICE, British Columbia.

CROOKES, HON. ADAM, Q.C., LL.D., Toronto, Treasurer of the Provincial Government of Ontario, Canada.

CUMBERLAND, COLONEL FREDERICK W., Toronto, Canada.

CURRIE, JAMES, Mauritius.

DAVIS, N. DARNELL, Civil Commandant, Sherboro', West Coast of Africa.

DAWSON, G. P., Halifax, Nova Scotia.

DE MORNAY, HENRY, Penang, Straits Settlements.

DENNISON, LIEUT.-COLONEL, Deputy-Adjutant-General, Ontario, Canada.

DE ROUBAIX, HON. P. E., M.L.C., Cape Town, Cape of Good Hope.

DOMVILLE, CAPTAIN JAMES, M.P., St. John's, New Brunswick.

DONTRÉ, JOSEPH, Q.C., Montreal, Canada.

DOUGLAS, SIR JAMES, K.C.B., British Columbia.

DOYLE, HENRY W. H., C.M.G., Chief Justice, Bahamas.

DUFFERIN, THE EARL OF, Governor-General of Canada.

DUNKIN, HON. MR. JUSTICE, County Judge, Eastern Township, Quebec.

DUNN, THE HON. JAMES, Member of the Executive and Legislative Council, Tasmania.

EDGAR, J. D., Toronto, Canada.

EDWARDS, DR. W. A., Mauritius.

ELMSLEY, HENRY, Toronto, Canada.

ESCOMBE, HARRY, Natal, South Africa.

FABIEN, CHARLES, Trinidad, West Indies.

FIFE, G. R., Brisbane, Queensland.

FITZGERALD, CHARLES (late 38th Foot and 1st West India Regiment), Ottawa, Canada.

FITZHERBERT, HON. WILLIAM, New Zealand.

FORSYTH, WILLIAM L., Montreal, Canada.

- GHINN, HENRY, Australia.
GIDDY, R. W. H., Treasurer-General, Diamond Fields, South Africa.
GILBERT, JOSEPH TROUNSELL, Attorney-General, British Guiana.
GILPIN, EDWARD, M.E., F.R.S., Halifax, Nova Scotia.
GLANVILLE, THOMAS B., Grahamstown, South Africa.
GLOVER, THOMAS, Quebec, Canada.
GOODLIFFE, FRANCIS G., Cape Town, Cape of Good Hope.
GOODLIFFE, JOHN, Natal, South Africa.
GOODRICKE, D. G., Durban, Natal.
GOODRICKE, J. R., Durban, Natal.
GRAHAM, JOHN, Victoria, British Columbia.

HADDON, F. W., Melbourne, Australia.
HAWLEY, J., Montreal, Canada.
HELLMUTH, THE RIGHT REV. ISAAC, Lord Bishop of Huron, Norwood House, London, Canada.
HEATHERINGTON, A., Halifax, Nova Scotia.
HENDERSON, JOSEPH, Pietermaritzburgh, Natal.
HETT, J. ROLAND, Clerk of the Legislative Assembly, Victoria British Columbia.
HEWETT, —.
HIDDINGH, HON. J., M.L.C., Cape of Good Hope.
HIGGINS, D. W., Victoria, British Columbia.
HILL, P. CARTERET, Halifax, Nova Scotia.
HINCKS, CAPTAIN A. S., St. James's Club, Montreal.
HUGHES, JOHN G., West Coast of Africa.
HUGHES, W. W., Wallaroo, South Australia.
HULL, HUGH MUNRO, Clerk of Parliament, Hobart Town, Tasmania (Corresponding Secretary).
HULL, JOHN, Queensland.
HUMAN, J. Z., M.H.A., Cape of Good Hope.
HUNTINGTON, HON. L. S., Montreal, Canada.
HYAMS, ABRAHAM, Golden Spring, Jamaica.
HYDE, CHARLES TONSTAL, Auditor-General, Antigua.

JACKSON, THOMAS WITTER, Chief Magistrate of the Gambia.
JENKINS, H. L., Indian Civil Service.
JETTÉ, L. A., Montreal, Canada.
JOHNSON, MATTHEW TROTTER, Victoria, British Columbia.
JONES, S. TWENTYMAN, Stanmore, Rindebosch, near Cape Town.
JORDAN, HENRY, Tygum, Logan River, Queensland.

KELSEY, J. F., Bowen, Port Denison, Queensland.
KER, ROBERT, Auditor-General, British Columbia (Corresponding Secretary).

KINGSMILL, JOHN JACHEREAU, County Judge, Walkerton, Ontario, Canada.

KINGSMILL, NICOL, Toronto, Canada.

LAURIE, COL. (Staff), Halifax, Nova Scotia.

L'ESTRANGE, CAPTAIN CHAMPAGNI, Nova Scotia.

LEVEY, CHARLES E., Quebec, Canada.

LEVY, G. COLLINS, Melbourne, Australia.

LYNN, W. FRANK, Winnipeg, Manitoba.

MACDONALD, A. J., Port Elizabeth, Cape of Good Hope.

MACDOUGALL, HON. WM., C.B., M.P., Quebec, Canada.

MACKENZIE, GEORGE POYNTZ, Toronto, Canada.

McMURRAY, J. S., Barrister, Toronto, Canada.

MACNAB, REV. DR., Rector of Darlington, Canada.

MACPHERSON, ALEX., Mauritius (Ralston, Paisley, Scotland).

MACPHERSON, COL. HERBERT, V.C., C.B., Bengal Staff Corps.

MASON, HENRY SLY, Victoria, British Columbia.

MAUDE, COLONEL F.C., V.C., C.B., Royal Artillery, Ontario, Canada.

MELBOURNE, CHARLES SYDNEY DICK, Rockampton, Queensland.

MILLS, CAPTAIN CHARLES, Under Colonial Secretary, Cape of Good Hope.

MILLS, THOMAS, Rockhampton, Queensland.

MOLTENO, HON. J.C., M.L.C., Cape Town, Cape of Good Hope.

MOODIE, G. P., Member of the Volksraad, Transvaal Republic, South Africa.

MORE, G. MONRO, Standard Bank of British South Africa, Cape Town, Cape of Good Hope.

NICOL, F. A. M.

NORDHEIMER, SAMUEL, Toronto, Canada.

NORMANBY, THE RT. HON. THE MARQUIS OF, Governor of New Zealand.

O'HALLORAN, J. S., Clanfergeal, South Australia.

OTTER, MAJOR, Queen's Own Rifles, Ontario, Canada.

OUSELEY, GORE, Indian Civil Service.

OUSELEY, MAJOR RALPH, Bengal Staff Corps.

PAINT, HENRY L., Halifax, Nova Scotia.

PARKES, SIR HARRY, K.C.B., Ambassador at the Court of Japan.

- PEARCE, BENJAMIN W., Victoria, British Columbia.
PHILLIPPO, HON. MR. JUSTICE, Straits Settlements
PINE, SIR BENJAMIN, K.C.M.G., Governor of Natal.
POOLE, HENRY, Cape Breton, Nova Scotia.
POPE, JOHN SYDNEY, New South Wales.
PORTER, W. (late Attorney-General), Cape Town, Cape of Good Hope.
PRENTICE, EDWARD ALEXANDER, Montreal, Canada.
PRESTOE, HENRY, Trinidad, West Indies.
- RHIND, W. G., Victoria, Australia.
ROBERTSON, HON. J., M.P., St. John's, New Brunswick.
ROBINSON, CHRISTOPHER, Q.C., Beverley House, Toronto, Canada.
ROBINSON, JOHN, M.L.C., Durban, Natal.
ROGERS, HON. ALEXANDER, M.L.C., Acting Judge, Bombay.
ROSS, LIEUT. ANDREW, R.N.
RUSDEN, GEORGE W., Clerk of Parliament, Melbourne.
RUSSELL, LOGAN, D. H., M.D., West Coast of Africa.
RUSSELL, ROBERT, LL.B., Barrister, Government Park, near Spanish Town, Jamaica.
- ST. GEORGE, HENRY Q., Toronto, Canada, and Montpelier, France.
SAMUEL, HON. SAUL, C.M.G., Postmaster-General, New South Wales.
SANJO, J., of Japan.
SCOTT, SIR J., late Governor of British Guiana.
SHEPSTONE, HON. THEOPHILUS, C.M.G., M.L.C., Pietermauritzburgh, Natal.
SHEPSTONE, THEOPHILUS, JUN., Pietermauritsburgh, Natal.
SMITH, HON. DONALD A., M.L.A., Winnipeg, Manitoba.
SMITH, SIR FRANCIS, Chief Justice, Tasmania.
SMITH, JAMES F., Barrister, Toronto, Canada.
SNAGG, SIR WILLIAM, Kt., Georgetown, British Guiana.
SPENSLEY, HON. HOWARD, M.L.C., Victoria, British Columbia.
STAHLSCHMIDT, THOS. Lett, Victoria, British Columbia.
STANFORD, ROBERT HARLEY, Cape Town, Cape of Good Hope.
STAYNER, T. SUTHERLAND, Toronto, Canada.
STEPHENS, ROMEO, Montreal, Canada.
STEWART, ROBERT, General Manager, Standard Bank of British South Africa, Port Elizabeth, Cape of Good Hope.
- TENNANT, THE HON. DAVID, M.L.A., Speaker of the House of Assembly, Cape of Good Hope.

THIBANDEAU, ALFRED, Montreal, Canada.

THOMPSON, J. ROGERS, Levuka, Fiji.

THOMPSON, THOMAS, Transvaal Republic, South Africa.

THOMSON, MATTHEW C., Rockhampton, Queensland.

THOMSON, W. A., (M.P. of) Canada.

THOZET, ANTHELME, Queensland.

TRUTCH, HON. J. W., Lieutenant-Governor of British Columbia.

TURNER, JAMES, Hamilton, Canada.

TYSSSEN, G. R., Victoria, Australia.

UNIACKE, A. M., Halifax, Nova Scotia.

VERDON, THE RIGHT HON. SIR GEORGE, K.C.M.G., Melbourne.

WALKER, MAJOR JOHN, London, Canada.

WARD, WILLIAM CURTIS, Victoria, British Columbia.

WEBSTER, GEORGE, M.L.C., New Zealand.

WELD, HON. FREDERICK A., Governor of Tasmania.

WHITE, THOMAS, Blocunfontein, Orange Free State.

WHITFIELD, R. H., Georgetown, British Guiana.

WOODS, ROBERT STUART, Q.C., Chatham, Canada.

WYATT, CAPTAIN (late Cape Mounted Rifles).

THE ROYAL COLONIAL INSTITUTE.

SESSION 1873-74.

THE Session of 1873-4 was inaugurated by a dinner at Messrs. Spiers and Pond's new establishment, "The Criterion," on December 15th, 1873, at which were present His Grace the Duke of Manchester, who, as President, occupied the chair; the Hon. Arthur Kinnaid, M.P.; John Holms, Esq., M.P.; Sir Richard Graves MacDonnell, K.C.M.G. and C.B.; General Sir J. D. Macpherson, K.C.B.; General Sir H. C. B. Daubeney, K.C.B.; Major General Millington Synge, R.E.; Sir Charles Nicholson, Bart.; the Hon. Saul Samuel (Postmaster-General of New South Wales); General Moore; Captain Bedford Pim, R.N.; Colonel G. T. Denison (Canadian Rifles); Major Leech; Captain J. C. R. Colomb, R.M.A.; Captain W. J. Wyatt (late Cape Mounted Rifles); Captain Jackson; Rev. F. W. Stovin; Rev. R. A. Currey; Dr. John Rae, L.L.D.; the Hon. E. A. Ponsonby; the Hon. William MacDougall, C.B. (late Minister of Public Works, Canada); the Hon. P. E. de Roubaix (M.L.C. of Cape of Good Hope); the Hon. J. P. Bear (M.L.C. of Victoria, Australia); C. W. Eddy, Esq.; Gisborne Molineux, Esq.; J. F. Kelsey, Esq.; W. J. Browne, Esq.; A. M. Uniacke, Esq. (Nova Scotia); A. MacLachlan, Esq.; H. E. Montgomerie, Esq.; Steuart S. Davis, Esq. (St. Kitts); Edward Wilson, Esq.; James Farmer, Esq. (New Zealand); F. A. M. Nicol, Esq.; George Green, Esq. (S. Australia); F. P. Labilliere, Esq.; Alsager H. Hill, Esq.; J. G. Stapleton, jun., Esq.; Henry Wellings, Esq.; A. A. Croll, Esq.; N. Darnell Davis, Esq. (Demerara); A. R. Roche, Esq.; Felix Jones, Esq.; S. T. Jones, Esq.; E. A. Prentice, Esq.; J. S. Prince, Esq.; H. W. Freeland, Esq.; Hugh Swale, Esq.; T. M. Harrington, Esq.; James A. Youl, Esq.; George Armytage, Esq.; F. A. Wiggins, Esq.; B. G. Gray, Esq.; Cornelius Thorne, Esq.; J. Z. Human, Esq. (M.H.R. of Cape of Good Hope); C. Fraser, Esq.; S. W. Silver, Esq.; Alexander MacArthur, Esq.;

Augustus B. Abraham, Esq.; William Walker, Esq.; J. M. P. Montagu, Esq.; George Tinline, Esq.; J. Denistoun Wood, Esq.; F. S. Dutton, Esq., C.M.G. (Agent-General for South Australia); G. M. Kiell, Esq.; Winifred Bevan, Esq.; Francis Bevan, Esq.; E. J. Burgess, Esq.; Horatio Barnett, Esq.; Hugh Jamieson, Esq.; James Fisher, Esq.; Clarence Denison, Esq.; Peter Watson, Esq.; Jacob Montefiore, Esq.; R. H. Prance, Esq.; Alexander Woodruffe, Esq.; H. E. Watts, Esq.; A. J. Duffield, Esq.; George Lyons, Esq.; Henry Blaine, Esq.; A. Rivington, Esq.; J. B. Brown, Esq.; Edwin Carton Booth, Esq.; John Peter, Esq.; and T. E. Fuller, Esq. (Cape Emigration Commissioner), &c.

The usual loyal toasts having been duly honoured,

The noble CHAIRMAN rose to propose "The Army, the Navy, and the Reserve Forces." He regretted, he said, when he was in Canada the other day, to see historic garrisons and commodious barracks utterly unoccupied. The flag of England, that flag of which we all talked about as having braved a thousand years, was protected by no Imperial troops, and as an Englishman, that caused him great regret. Still he found that everywhere in Canada the British Army was looked upon with affection and respect. The forces that at present existed in Canada did their best to copy the example set them by the British troops who had been there, and he must say that the men he saw at Toronto had a very soldier-like appearance. He congratulated Colonel Denison on the appearance of the men he formerly commanded. The Chairman said he need not praise the regular Army or the Navy, and he did not think that any gentleman present would wish him to extol the Reserve Forces. Although the latter did not come up to the standard of the "regulars," consequent upon having to labour under great disadvantages, he really believed they did their best, and that they deserved some amount of credit. (Hear, hear.)

General Sir JAMES MACPHERSON, in responding for the Army, spoke highly of the efficiency of our soldiers. We had, he said, more sinews of war than any other nation, but in point of numbers our army was very small. But why should this be? What could be more simple than to extend the Volunteer movement to all our schools and colleges—(hear, hear)—so that every boy of twelve years of age could be put to his drill and taught to shoot as soon as fit to handle a rifle? By the time he had arrived at the age of seventeen—if thus trained—he would be ready to turn out at any time, and, like every true soldier, would be willing and able to defend his country in time of war. (Hear, hear.) If this were done, we should be able to count our defensive forces—or offensive

forces if the company liked—by the million, instead of by the paltry hundred thousand. He was sorry to say that at the present time our defensive forces only numbered some 223,000 men.

Captain BEDFORD PIM, on behalf of the Navy, thanked the company heartily for the manner in which they had drunk the toast. He was sorry there was not a young fellow on the active list present to give the company some idea of the present condition of the Navy. He was becoming quite an “old fogey” himself, but in the absence of an active officer, he would uphold the prestige of the British Navy, and say that, whether it be on a wooden ship or on an ironclad, or amongst the “blessed niggers”—(laughter)—on the Gold Coast, we always found our English sailors ready and willing to do their duty. (Hear, hear, and cheers.)

Colonel DENISON responded on behalf of the Reserve Forces. He regretted that some party at home was not singled out in his stead to reply, but properly it became the duty of a Canadian to speak of the “Reserves,” because in Canada they had only reserve forces. Throughout the Canadian Dominion the system of reserve was to train the whole people, so that, in case of war, every able-bodied man was ready, and, he might say, willing to defend the country. They had the ballot and conscription in Canada, and all the people looked upon these with favour. With them it was not a case of sending a volunteer to the front, but of sending every man in the country out to fight. With regard to the Canadian volunteers, it might be said that they had a record which no other volunteers had. They had, fortunately, or perhaps unfortunately, had more real work to do than the volunteers of any other country, and he thought he might fairly say that, in every case where the services of the Canadians had been required on behalf of the Empire, they had behaved most manfully. (Hear, hear.) In the war of 1812, although there were many people in England who thought it would be impossible to defend Canada, and notwithstanding the idea was given up by several, General Brock got the Canadian people to stand by him, and in a very short time they succeeded in driving the enemy from the heights of Queenstown. (Hear, hear, and cheers.) Afterwards they managed to hold their ground alone. The dispute of 1837 they settled for themselves; and again, in the time of the Fenian raid, the Canadians fought well and bravely. At that time one of their companies was composed entirely of young students from the University of Toronto. They were turned out fully equipped in less than twenty-four hours, and amongst the number of men who

took part in the conflict there were eighteen casualties. The people of Canada had also done well for the mother-country. (Hear, hear.) At the time of the Oregon difficulty, the Canadians helped to bring about an amicable settlement, and again when the *Trent* was boarded on the high seas, it was nothing but the determined attitude of the Canadian people that prevented war. (Hear, hear.) He need not say anything further, and he hoped the company would excuse him for having said so much ; but it was not often that a Canadian had an opportunity of speaking in such an assembly as the present, composed as it was, of prominent men who took an interest in the welfare of the Empire, and especially in the welfare of Canadians, whose creed was "a United Empire." As an old loyalist, he had a great pride in being a member of the Colonial Institute ; and in conclusion, he could only congratulate the members upon the sound, patriotic, and old loyalist feeling that animated their President. (Applause.)

The CHAIRMAN said it was intended that he should next propose the toast of "The United Empire," but he would trouble them very little upon that subject after the speech of Colonel Denison, for it seemed to him that he had already proposed the toast. The gallant Colonel had spoken most enthusiastically, and by practical examples had shown what "a United Empire" really meant amongst the Canadians. (Hear, hear, and cheers.) The people of Canada had shown themselves always ready to shed their blood in the interest of the Empire, and he thought he might say that the people of England were quite as ready to preserve its unity. (Hear, hear, and cheers.) He was glad to hear Colonel Denison's remarks about the relations of the Colonies with the mother-country, and hoped that those relations would be strengthened by the formation of a real council of the Empire, which he hoped soon to see established. He trusted that some such scheme as that which had been practically carried out in Canada, and which had been tested in some of the West India Islands, would shortly be extended to Australia and New Zealand, and that those local federations might ultimately lead to a federation of the Empire, having one unanimous council working together for the good of the whole. (Hear, hear, and cheers.) One great advantage of a council like that would be that its power would be enormous, and certainly for peace. It would tend to keep the whole world at peace ; and, therefore, when he advocated the unity of the Empire, it must be for the benefit of the human race. He proposed "Prosperity and Progress to the United British Empire."

The Hon. SAUL SAMUEL, in responding to the toast which had been so cordially received, regretted that in an assembly of so many distinguished colonists it had not fallen to the lot of some one more capable of doing justice to the subject than himself. Whatever difficulty, however, he might have in finding language adequately to express all that he desired, and which so important a toast merited, he could say that he would give place to no one in an ardent desire to preserve the integrity of the British Empire. (Cheers) He was aware that there were some who had advocated the separation of the Colonies from the mother-country, because of expense and the difficulty which might be entailed in time of war; but he believed that the views of those economists were not the feelings entertained by the English people generally. (Hear, hear.) It was difficult to judge which of the Colonies those gentlemen desired to cast adrift, whether it was those possessing self-government, and which added so much to the greatness of the Empire, or whether it was those which were supported, for political reasons, at a great cost to the country. He was sure that neither one nor the other propositions would find favour. He spoke from an Australian point of view when he said that Her Majesty had no more loyal subjects than she had in the Colonies. Their trade and commerce were of the greatest importance to the British Empire, and he certainly was proud that he belonged to one of those Colonies whose produce regulated the money market of the world—(hear, hear)—for few could be ignorant of the fact that during the recent monetary crisis in England the arrivals of gold from Australia relieved the panic which prevailed. The gallant general who had preceded him had expressed a wish that all children in the public schools should be trained to the use of arms, so as to engender a military spirit amongst the youth of the country. In New South Wales the children of the public schools received a regular military training, wearing a uniform which gave them quite a soldierly appearance. Those little red-coated cadets were taught that it was their duty not only to protect their Colonial homes but to preserve and defend the British Crown. (Cheers.) There was also a large proportion of the adult population of the Australian Colonies who were trained to arms, forming a well-disciplined body of volunteers, who were ready, like the Canadian colonists of whom Colonel Denison had so ably spoken, both to defend their country from foreign invasion, and, if necessity should demand it, to go forth to distant lands to fight for the honour of the British Crown. (Hear, hear.) It was gratifying to him (Mr. Samuel) to observe that the colonists were in every way English. They copied English insti-

tutions even to a fault, and they did sometimes try to improve upon them. (A VOICE: "The Ballot.") Yes, the Ballot was first introduced in the Colony of New South Wales: though they were thought fast and too democratic, yet he heard that the Conservatives of England were well pleased with the result of that measure. (Cheers and laughter.) He did not desire, however, to discuss political questions, but it could not fail to be gratifying to find that the colonists had shown such an aptitude for self-government, that some of their acts of legislation were deemed worthy of being imitated by the Parliament of the parent-country. He considered it a matter of congratulation that there was in England so influential a body of gentlemen as the members of the Colonial Institute, presided over by the noble duke, their chairman, whose object was the advancement of Colonial interests, and who were ready at all times to aid in endeavouring to obtain redress for any grievance under which the Colonies might labour. Fortunately there was little just now to complain of. Indeed he did not know that they required very much, but it was well there should be those who were actuated by a desire to preserve the unity of the Empire, and who would be ever on the watch to check the mischievous tendencies of inconsiderate and rash politicians, who might advocate the separation of Great Britain from our Colonies, leaving them to be split up into numerous petty states, without the power of defending themselves against the aggression of any foreign power, and at the same time destroying the prestige which attached to this nation from the grandeur and extent of its possessions. (Cheers.) He thanked them for the manner in which they had received the toast, and the honour conferred upon him in coupling his name with it. (Applause.)

The Hon. WILLIAM MACDOUGALL, C.B., late Minister of Public Works, Canada, in responding for the Dominion, said:—As the descendant of a united empire loyalist of the old thirteen Colonies, I willingly respond to the sentiment your Grace has proposed for our acceptance. (Cheers.)—A closer union of the British dependencies, not only among themselves as members of the same great family, but with the mother-country as the centre of our affections and the source of our hope for moral as well as material support in the hour of danger, is, I assure you, ardently desired by a vast majority of the inhabitants of British North America. (Cheers.) Our recent confederation, and our attempt to establish more intimate relations with our fellow-colonists in the West Indies—obstructed, as regards the latter, by unfriendly influences in this country—are the best evidence I can give of the desire for union,

consolidation, Imperial development and extension, which now animates your fellow-countrymen on the other side of the Atlantic. (Loud cheers.) I admit that a few years since, when certain writers of what was then called the "Goldwin Smith School" were preaching the doctrines of separation, of excision, of disintegration of the empire, and for a moment seemed to have gained the ear and inspired the utterances of some of your leading politicians—I will not call them statesmen—many Canadians began to cast about for some new political condition, which would be less galling to their pride than dependence, however slight, upon a country which did not appreciate their nascent strength, nor respond to their loyal protestations. (Hear.) But that feeling has passed away in Canada, because the disloyal sentiments that evoked it are now seldom heard in England. (Cheers.) Even the distinguished master of the school has abandoned his pupils; for, after testing the question by a personal and practical experience in the new world, he has settled down into a very loyal and high-toned defender of British principles, British precedents, and I think he will not contradict me if I add, British connection. (Cheers.) He has become, in fact, a good Canadian. (Laughter.) I remember well the occasion when this Institute under the name of the Colonial Society was founded. I then had the honour to make the acquaintance of your Grace, and to learn from your own lips the deep interest you felt in maintaining, as you expressed it, the strength and greatness of the British empire, by preserving the union, through affection rather than force, of its various parts. I have watched the progress of this Society, and I believe it has done much to propagate and strengthen that feeling. May it receive a new impetus from your Grace's visit to Canada. (Hear, hear.) You have seen enough of that great country to speak with confidence, not only of its present attainments, but of the possibilities of its future. You have visited most of its large cities, and you have even made yourself acquainted with the toils and hardships, as well as the hopeful prospects, of the poor settler in the backwoods. I have no fear as to the report you will give of the merits of Canada as a home for the surplus population of this country, or that your confidence in the loyalty of its people has been at all weakened by a personal acquaintance with them. And here, my lord duke, permit me, in the name of my Canadian fellow-countrymen, and I think I may venture to say in the name of all this goodly company, to congratulate you upon your safe return to England, and especially upon the recent happy event which has made Kimbolton once more an object of sympathetic interest in

every part of the empire. (Loud cheers.) May no shadow of evil obscure the bright hopes of the future which now illumine the pathway of the happy pair, but may every blessing which a father's heart can wish attend the noble duchess and her noble husband throughout the journey of life. (Cheers.) This is not the time nor the place to discuss the details of a measure for the reorganisation of the British empire in accordance with the ideas which gave birth to the Royal Colonial Institute; but that such a measure is possible, and that public opinion is daily tending in the right direction to make it practicable, I firmly believe. I thank you, therefore, for your hearty acceptance of the sentiment expressed in the toast—"The unity of the British Empire." May its shadow never grow less! (Loud cheers.)

The Hon. P. E. DE ROUBAIX, member of the Legislative Council of the Cape of Good Hope, in rising to respond, met with a most enthusiastic reception. He said that it was with no ordinary degree of gratification that he witnessed the favourable feeling so universally manifested towards the Colonies. When he left the Cape last year there was a strong feeling prevalent amongst the people that there was a desire on the part of the Home Government to cast off the Colonies. An opportunity had subsequently been afforded to him to be present at the dinner given last year in Cannon Street Hotel, in celebration of the opening of the telegraphic communication with Australia, and he must confess that from what he heard on that occasion he could not believe that such a desire had existed with the present Government, and if he were wrong in that supposition, it was plain to him at any rate that not only the large and influential party that assembled in Cannon Street unmistakably showed a different feeling, but that also the people of Great Britain with whom he had come in contact were most anxious to maintain the unity of the Empire. (Loud cheers.) This had been most pleasing to him, and afforded him an opportunity on going back to the Colony to represent matters in their proper aspect to his friends at the Cape. (Cheers.) His Grace the chairman had spoken of the loyalty which was found in the Colonies. He thought he could refer with pride in that respect to the Cape of Good Hope, and to the reception accorded to the Duke of Edinburgh on the several occasions when he visited that Colony, and to other instances in proof of that. He alluded to the great progress the Cape Colony had made, particularly during the last few years, and the wish which prevailed to keep up the connection with the mother-country. (Cheers.) In reference to the remark which had been made by the noble chairman with

regard to federation, he could say that a pretty strong feeling in favour of such a scheme existed in the Cape Colony, and he conceived that in course of time such a result might be expected to be brought about in South Africa. The gentlemen who had preceded him had gone so fully into matters connected with the Colonies that it would be only going over the same ground if he were to detain the company any longer. He sincerely thanked them for the manner in which the toast had been received and the honour they had done him in coupling his name with it. (Loud and prolonged cheering.)

Mr. JOHN HOLMS, M.P., said he had been entrusted with a toast of some importance—"The Royal Colonial Institute"—of which he was but a humble member. He assured the company that it gave him great satisfaction to be present to say a few words in connection with the Institute. He felt that in the House of Commons they had so much work to do, that it was of the greatest importance that they should be furnished with facts in relation to any question with which they had to deal—(hear, hear)—and the Colonial Institute would be mainly occupied in supplying facts to those who desired to have them. He believed that no country in the world had ever been so successful in founding Colonies as we had been. (Hear, hear.) We had closely adhered to the principle of local self-government, and, after all, our Colonies were but an extension of that principle. Responsible government was founded, he believed, in Australia in 1836, and very recently it had been adopted at the Cape. It was to that principle that we must look for a close relationship with the Colonies. He believed, that if Spain had adopted the principle of Federation, she would not have lost her Colonies as she had done. (Hear, hear.) While speaking of relationship and interchange of ideas, he might say that he was of the opinion that before long we should see a much cheaper postal communication with the Colonies; and, after all, that was one of the best means of keeping communities together. The high rates of ocean postage was one of the greatest drawbacks of the age. He hoped the day was not far distant when ocean postage subsidies, the main cause of high rates, would be abolished. After saying that we should take advantage of the simple and good system now in force in Australia for the transfer of land, the speaker concluded by remarking that with his toast he had to couple the health of Dr. Eddy, to whose energy and perseverance they were indebted for the success which had attended the Royal Colonial Institute.

Mr. C. W. EDDY, in responding, said it was a well-known axiom that "the most eloquent things were facts," and he thought he

could give the meeting some interesting facts about the progress of the Colonial Institute. The inaugural dinner last year took place on December 10, and the company numbered about 50 ; this year there were just upon 100 persons present, and he hoped on the next occasion to see not less than 200 sit down to dinner. The great aim of the Institute was to secure non-resident members. At the present time they had about 150 non-resident members, and about 250 resident members. Their library had been largely increased by an addition of several blue-books, many of which had been sent to them by the Agents-general of the several Colonies. He was happy to state that the *prestige* of the Institute was also increasing. If the Council had occasion to go to the Government now, they were always heard and treated with respect, and their words invariably carried some weight. (Hear, hear.) Another matter of interest he had to report was that arrangements were on the point of being concluded between the Colonial Institute and one of the oldest of the London clubs, whereby members of the Institute would enjoy club facilities on extremely reasonable terms. In conclusion, he had only to state that the prospects of the present session were very encouraging. The first meeting would be held on January 7, when Mr. Peter L. Simmonds would read a Paper on "Colonial Aids to British Prosperity."

The Hon. ARTHUR KINNAIRD, M.P., next called upon his "brother members of the United and indissoluble British Empire" to drink the health of the Chairman. In their President they had a man who had proved himself wise by the enlightened views he entertained beyond many of his generation. Mr. MacDougall had congratulated his Grace upon a recent event which had taken place in his family, and he (the speaker) agreed with him that it was an event of importance, for his Grace had annexed a free dukedom to his family. Mr. Holms had referred to the transfer of land as effected in Australia, and while he was speaking he (Mr. Kinnaird) could not help comparing England and her Colonies, for while in the former land was a luxury attainable only by a few, in the latter there was enough and to spare for every man. He had pointed this out in his recent address to his constituents at Perth, and had advised those who were not afraid of work to emigrate to one of our Colonies if they desired to acquire an inheritance for themselves. He concluded by wishing long life to their noble President, and may the premier Duke of Scotland, at no distant period, second him in his noble efforts ! (Cheers.)

The CHAIRMAN thanked the company sincerely for the kind and hearty way in which they had drunk the toast, but he must say

that it came most properly after the speech of Dr. Eddy's, for if he had given satisfaction and done good service to the Colonial Institute, he was indebted for his success to Dr. Eddy, their indefatigable honorary secretary. Mr. Holms and Mr. Kinnaird had both spoken of free land. His Grace believed, with Mr. Kinnaird, that anyone who wanted land would find it very much better and cheaper in the Colonies than they would in England. (Hear, hear.) While he was in Canada he noticed that much of the land which, but a few years since, was nothing but barren waste, had been cleared and houses were built upon it. Farms already stocked could be sold for \$15 an acre, and that was what we could not get in England. In the backwoods of America there was an abundance of garden soil, and in Toronto for at least three hundred miles the land was of the most fertile description. For several months in the year, however, the rivers were coated with ice, and the roads covered with snow, so that farming operations were somewhat impeded. But this was not the case in Australia. There the farmer could work all the year round, and the land was just as good; in fact, the Hon. Saul Samuel had stated that it was better, if so, it is fortunate for other Colonies that it is so far off. His Grace then went on to say that he was proud of being the president of the Colonial Institute, and he was glad that he had been selected for the post, if only because it had induced him to cross the Atlantic and see one of the finest Colonies in the world. He would not say that there were not other Colonies equally as fine, but Canada was really a magnificent Colony—the beauties of the St. Lawrence River surpassing anything seen in this country. The Canadians were not only making great progress in farming, business, and manufactures, but they managed to propagate as fine specimens of humanity as could be seen in any part of the world. Besides Canada, his Grace said, he had visited the Cape of Good Hope, and he had very pleasant recollections of that Colony. In conclusion, he said if he lived to the age of Methuselah, and should then visit Australia and New Zealand, he hoped to find them still a part and parcel of the British Empire.

Mr. EDWARD WILSON proposed “The Guests.” He said it was a matter of interest to him that on the present occasion the members of the Colonial Institute might be considered the entertainers, and the guests might be said to be gentlemen who had for the most part of their days resided in England; but he inquired how long it would be before this order of things would be reversed. We had heard a great deal about the permanency of the British Empire, but he was sorry to say that the idea of unity was not unanimous.

And when we heard, and were delighted to hear, about that glorious old flag which had braved "the battle and the breeze," we must not forget that side by side with that flag had lately been raised a false substitute—in fact a parody of that flag, of the strength and force of which we had yet to understand the full meaning—he meant the shoddy article hoisted aloft by what was called "the Manchester School"—an article which he believed would give way to the first battle or breeze to which it was exposed. (Hear, hear, and cheers.) At the present time several parts of the Empire were in a very disturbed state. There was war raging on the Gold Coast, and they had just heard of a Kaffir revolt at Natal—things greatly calculated to test the firmness of our Colonial policy. (Hear, hear.) "The Manchester School" told us that the time had arrived for the breaking-up of the British Empire and for the Colonies to declare independence, and a time might come when a small minority, but still a very persistent one, would carry out that policy. Therefore it was as well for us all to understand exactly what we were doing, for he believed that it would be the greatest misfortune for England herself, twenty times more than for the Colonies, if the policy of disintegration was acted upon. He next spoke of emigration, and said he wondered whether Government calculated what the dead loss of 50,000 or 100,000 people every year from English shores really meant. If we annually sent away that number of cattle, sheep or pigs, a payment in money, or money's worth, would be insisted on as a matter of course. But being men—much more valuable than either cattle, sheep or pigs—they were ignorantly given away to the United States or elsewhere without any thought of payment. That eminently practical people the Americans had, in a late State paper, priced the average emigrant at £166 13s. 4d.—(laughter): that seemed a very small sum for a human being. But it might be some consolation to such of us as were likely soon to be most unwillingly and unnecessarily sent adrift, to know the exact money value at which we were appraised by those who understood that we really had a money value.

Major LEECH briefly responded. He was glad to see the Colonies represented on the present occasion in so efficient a manner, and he hoped the Colonial Institute would continue to prosper. In fact, he did not see how it could do otherwise with such an indefatigable gentleman as Dr. Eddy for its secretary, and his Grace the Duke of Manchester for its president. (Hear, hear, and cheers.)

The meeting, which lasted till nearly midnight, was then brought to a close.

AN ordinary General Meeting of the Institute was held in the Theatre of the Society of Arts, on Wednesday, January 7th, 1874, Sir RICHARD GRAVES MACDONNELL, K.C.M.G., and C.B., in the chair.

Mr. PETER LUND SIMMONDS read the following paper on

COLONIAL AIDS TO BRITISH PROSPERITY, TOGETHER
WITH A RETROSPECT OF THE PROGRESS OF OUR
DEPENDENCIES IN THE LAST QUARTER OF A
CENTURY.

In an assembly of actual colonists and those officially connected with our Dependencies, it may perhaps be asked what claim I have to appear before you as an exponent of Colonial progress, and why I have been asked to speak on a subject of such great national importance. In justification to myself I may therefore state that my interest in the Colonies and advocacy of Colonial affairs is of old date.

The Institute has been favoured from time to time with able papers descriptive of particular Colonial fields and subjects of special inquiry, but as I have no identification with, or leaning towards, any one Colony or group of Colonies, I propose this evening taking a general survey of the progress of our Colonies in the last quarter of a century, with the view of showing not only how they have increased in material prosperity during that period, but how they have at the same time promoted the welfare of the mother-country in various ways. In so wide a range of investigation and extending over so long a period, it will be impossible to do much more than furnish the statistical data for the two periods, and dwell upon a few of the most salient points. I cannot but think, however, that such a comparison will settle some of the lingering doubts yet existing in the minds of certain commercial politicians as to the value of her Colonies to Great Britain.

In glancing at our Colonies, we cannot lose sight of the fact of their great value to the mother-country in furnishing us with large portions of our food supplies and the raw materials for our manufactures,—as fields for enterprise and the safe and profitable investment of capital,—as homes for our population,—as large customers for our manufactures,—as affording active employment

for our shipping, and as outposts of defence, and nuclei for the establishment of volunteer forces and mercantile marine.

In attempting a survey of Colonial progress, (and I cannot leave our Indian Empire out of the list) the period of a quarter of a century takes us back to the time when South Australia and New Zealand were almost in their infancy, and when New South Wales was the parent Colony, which has since thrown off as thriving outshoots Victoria and Queensland. It was before the mineral resources of those Colonies had been discovered and developed, and the interior was scarcely known. It was before railroads and steam navigation and electric telegraphs had been introduced there, and before International Exhibitions had familiarised the world with the riches of Colonial products. In 1841 but four vessels cleared out from Port Adelaide, South Australia, whose united cargoes consisted only of 1,857 bales of wool, 447 casks of oil, and 464 bundles of whalebone. Last year 121 vessels, of an aggregate tonnage of 88,349 tons, cleared for Great Britain from that Colony alone.

In the period which I have thus selected for review, the following changes have taken place in British Colonies and Possessions :—In North America, the former Colony of Canada is now known under the two divisions of Ontario and Quebec, and forms the centre of the United Dominion of North American Colonies. We have taken over the Red River Settlement (now known under the name of Manitoba) and Vancouver's Island from the Hudson's Bay Company, and founded a new Colony in British Columbia. In Africa, Fernando Po has been given back to Spain ; we have made Colonies of Lagos and Sierra Leone, extended our protection to the Diamond Fields, annexed Basuto Land and Griqua Land West, taken over Elmina and Dutch Guinea, given up the Orange River Sovereignty, and established Natal as a separate Colony. In Australasia, Victoria to the South and Queensland to the North have been separated from New South Wales, and made independent Governments. South Australia has extended its territory across the Continent to Port Darwin, and Queensland joins it, extending to Torres Straits and the Gulf of Carpentaria. Swan River and King George's Sound now constitute the Colony of Western Australia. Norfolk Island has been colonised by the descendants of the mutineers of the *Bounty*, transferred from Pitcairn's Island. The New Zealand Islands, although forming one Colony, have been divided into eight separate and independent provinces.

In the Mediterranean we have handed over the Protectorate of the Ionian Islands to Greece.

We have taken possession of Aden, Hong-Kong, and Labuan, although these cannot be termed Colonies. The Straits Settlements of Singapore, Penang, and Malacca have been formed into a separate Colony, and our Possessions in India have been largely extended; for there has been added to our Indian Empire the two great kingdoms of Scinde and Lahore, and part of Burmah—territories comprising some of the finest and richest portions of Asia. The whole kingdom of the Punjaub is annexed to British India.

Emigration has done much for the benefit of the mother-country, her colonies, and her people. It has thinned our workhouses and made thriving colonists of our paupers; it has caused populous settlements to spring up in heretofore desert places, which, by industry and commerce, have risen into importance with marvellous celerity; it has given hope, energy, and activity to men who had previously none of those incitements to progress, owing to the existing competition and pressure around and about them at home; and who, in the race for fortune, lacking that main element of success, capital, saw no bright future for themselves and their families.

Removed, however, from these depressing influences—with a wider scope and a purer atmosphere, where the soil gave forth in abundance in return for their labour, where their industry meets its due reward, and each man is estimated alone by his industrial worth—they have become active and important members of society, and their children a blessing, not a burden to them. By their aid they have doubled year by year the produce of the soil, have extended the elements of prosperity, acquired land which attaches them firmly to the Colony, and every colonist also becomes a larger consumer of British manufactures than any foreign customer. It is by the strong arm and the active energies of our emigrants that the Canadian Dominion, the South African Colonies, Australia and New Zealand, have become what they now are.

Every newly-introduced working immigrant in a year or two creates a demand for another to supply his vacated place, as he rises in the scale of advancing progress, and is lifted by the improving fortunes of the Colony, and his own activity and untiring industry, into a higher position in society.

In England the chances of success in agricultural progress are very limited, while only manufactures and commerce are open to enterprise, and even in these capital is necessary. But in our Colonial Possessions a man of enterprise and industry can make way, and rise steadily and surely with the progress of the Colony in which he settles, well fed, well paid, and lightly taxed.

In 1845 less than 1,000 persons quitted our shores for Australia. In 1848, however, the current set in strongly towards the Australian Settlements, when about 24,000 persons left, increased in 1849 to 32,000.

In the twenty-five years, ending with 1873, 904,072 emigrants have proceeded to the Australian Colonies, and 600,804 to the North American Colonies, besides those who have left for the South African Colonies and other Possessions, of which there are no data. I have received from the Assistant-Secretary of the Emigration Board the returns for the first three quarters of the past year, but those for the last quarter are not yet available. However, in the nine months of 1873, 16,836 left for Australia (a larger proportion than for many years past), and 33,448 for British North America.

The following figures clearly prove that emigration has been instrumental in keeping down the aggregate amount expended in the kingdom for the relief of the poor. Although our population is larger by nearly $4\frac{1}{2}$ millions than it was a quarter of a century ago, yet the sum expended for the relief of the poor is less by nearly £700,000 than it was then, as the following returns will show:—

Paupers in 1849 (population of the Kingdom, 27,658,704):—

England and Wales	934,419
Scotland	82,357
Ireland	620,747
	<hr/>
	1,637,523

In 1848 there was expended for poor-rates in—

England and Wales	£8,047,485
Scotland	544,334
Ireland	1,835,634
	<hr/>
	£10,427,453

Number of paupers in 1873 (population of the Kingdom, 32,131,488):—

England and Wales	890,372
Scotland	117,611
Ireland	79,649
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	1,087,326

In 1872 there was expended for the relief of the poor in—

England and Wales	£8,007,403
Scotland	862,171
Ireland	868,820
	<hr/>
	£9,738,394

COLONIAL INVESTMENTS.—My friend Dr. Hyde Clarke has already favoured the Institute with a paper “On the Financial Resources of our Colonies,”* read in March, 1872, in which he told us that our Colonies and India have a preference in the money-market, and their securities command relatively higher prices. The majority of Colonial investments are safe and remunerative, and have less of the speculative and scheming character than many foreign projects.

Mr. Eddy well remarks in his “Tables of British Commerce,” “No Colonial Government has ever been a defaulter to the public creditor, and hence Colonial securities are for the most part above par.” I may cite as instances, the Canada Company’s shares at high premium; the Scottish Australian Investment, 25 to 35 prem.; the South Australian Land, 10 prem.; the Royal Mail Steam shares, 20 prem; the Burra Burra Mine shares, on which only 5s. has ever been paid, and yet the shareholders have received £56 per share dividend; the Cape Copper Mining Company, with only £7 per share paid, and yet £13 15s. has been received in dividends; the Australian Banks, again, averaging 10 per cent., and some paying 13 and 20 per cent.

Besides the various banking institutions, there are not less than 150 commercial, financial, and industrial companies connected with India and the Colonies, having offices in London, in whose operations a large amount of British capital is invested.

The several Banks connected with India and the Colonies doing business in London have a paid-up capital exceeding £20,000,000, as will be seen from the following summary. Some of these have paid as high as 12½ and 15 per cent. dividends, but, averaging the whole of the last dividends paid, they exceed 8½ per cent.

INDIAN AND COLONIAL BANKS DOING BUSINESS IN LONDON, IN 1874,
WITH THEIR PAID-UP CAPITAL.

Name.	Capital paid up.
Agra	£1,000,000
Australasian Joint Stock	484,656
Bank of Australasia	1,200,000
„ British Columbia	298,000
„ British North America	1,000,000
„ Montreal	2,400,000
„ New South Wales	1,000,000
„ New Zealand	600,000
„ South Australia	500,000
„ Victoria	500,000
Chartered of India, Australia, &c.	800,000
„ Mercantile of India, &c.	750,000
Colonial	500,000

Carried forward .. £11,032,656

* Vide Proceedings of Royal Colonial Institute, vol. iii. page 130.

				Brought forward ..	£11,032,656
Commercial of Sydney	..	..	..	..	400,000
Delhi and London	..	..	..	..	675,250
English, Scottish, and Australian	..	..	..	..	600,000
Hong Kong and Shanghai	..	..	..	..	1,125,000
Land Mortgage of India	..	..	..	..	900,000
„	„	Victoria, Australia	..	..	100,000
London and South African	..	..	..	..	400,000
London Chartered of Australia	..	..	..	..	1,000,000
Mercantile Bank of Sydney	..	..	..	..	150,000
National of Australasia	..	..	..	..	80,000
„	„	India	..	..	464,625
„	„	New Zealand	..	..	1,000,000
Oriental Corporation	..	..	..	..	1,500,000
Standard of South Africa	..	..	..	..	526,275
Union of Australia	..	..	..	..	1,000,000
Total ..					£20,953,806

RAILWAY PROGRESS.—The Colonies have also offered an extensive field for the employment of British engineering skill and manufacturing industry in the great demand for surveys, for rails, locomotives, carriages, telegraphic wires, submarine cables, and machinery of various kinds.

A French Minister of Public Works, in an address to the Chamber of Deputies, some years ago, remarked that “Railways are, next to the invention of printing, the most powerful engine of civilisation that the ingenuity of man has devised. It is difficult, if not impossible, to foresee and define the results which they must of necessity at some period produce on the fate of nations.”

Only those who study the Parliamentary returns can form any estimate of the increasing value of the exports of agricultural implements, machinery, and mill-work, carts and waggons, as well as saddlery and harness, &c. to the Colonies; and this increase is not only a proof of the quality and estimation in which British manufactures are held, but is also an evidence of the progress of scientific agriculture in distant quarters.

Colonial farmers are no longer content with the rough and ready implements which were formerly turned out to do duty on the soil. English-made ploughs and harrows, horse-hoes and drills, carts, reaping and thrashing machines, are found to do their work more effectually, and to be more durable than anything of native manufacture could be, and therefore it pays better to import them, at an enhanced price.

The declared value of the agricultural implements sent out from this country annually averages now about £260,000, of which a large proportion (£100,000) goes to our Colonies. The mill-work and machinery exported now exceed £8,200,000, of which

about one million is ordered by India and the Colonies. The value of that shipped has risen from £821,644 in 1847, to upwards of £5,000,000 in 1872, exclusive of steam-engines, many of which are ordered for agricultural use, and especially for sugar estates, saw-mills, &c.

The money paid to the mother-country, then, for machinery and mill-work has been exceedingly large, although some of the Colonies have now attained to the position of being able to manufacture for themselves.

The returned value of the manufacturing, mining, and agricultural machinery in operation in Victoria in 1872 was as follows:—

Manufacturing machinery	..	..	£2,892,001
Mining	..	..	2,060,885
Agricultural	..	..	6,452,201
			<hr/>
			£11,405,087

With the progress of engineering skill, the command of capital, and the combination of “practice with science,” we are long likely to be the manufacturers of agricultural implements, steam-engines, machinery, and mill-work for the whole world.

In the year 1852 there was not a single mile of railway open in what was then Western Canada, but is now the Province of Ontario. At the present moment there are upwards of 1,400 miles in operation, and the building of several other lines has been commenced. Now, in the whole of Canada there are more than 4,600 miles of railway, and about a thousand more in course of construction, whilst the Lower Provinces have also upwards of 800 miles of railway. There are also many great public engineering works which have given large employment to British engineers, British labour, and capital.

In Canada there has been, besides other great undertakings, the completion of the magnificent railway bridge of two miles across the St. Lawrence, and the gigantic works of the Grand Trunk Railway, upwards of 1,377 miles in length, connecting the American railway system west of the Great Lakes with the ocean at Portland in winter, and at Montreal, Quebec, and Rivière du Loup in summer. This presents probably the most complete and comprehensive railway system in the world, and, taken in connection with the unequalled inland navigation of the St. Lawrence, affords the greatest possible facilities for intercommunication. The Inter-Colonial Railway is to construct 448 miles more, at a cost of four millions, to connect Quebec with Halifax. The plank-road which had pushed the venerable “corduroy” back into the woods,

has retired before the railroads with which the Dominion is now traversed. The lakes and rivers, too, are covered by steamboats.

It is to the construction of great public works that the increased dissemination of periodical literature is to be attributed. Newspapers published at Toronto could not have been sold by the million throughout Canada had not the roadways and streamways been extensively repaired, and the railway system elaborately extended. Now, however, facility of transport has kept pace with improvement in art, and consequently printing as a branch of Colonial industry has assumed proportions of such magnitude as to command the considerate respect of statesmen and the anxious attention of ministers of the crown.

Railways in India were only commenced in 1851 with the line from Calcutta to the coal-fields at Raneegunge, and now there are 5,512 miles of railway open. In the last twenty years 7,244 ships have been employed in conveying upwards of 4,500,000 tons of material, valued at about £30,000,000. Upwards of £3,000,000 has been paid on freight and insurance, and £11,600,000 on rolling stock, engines, steamers, barges, besides a further large sum on buildings, telegraphs, &c. There are 1,323 locomotives, 3,539 passenger carriages and goods trucks and waggons, making up a total of 26,555 vehicles. There are also about 4,500 Europeans employed on these railways. Before railways were commenced, according to Mr. Thornton, the Secretary of the Public Works Department, the imports to the country, representing the comparative condition of the people, were to the value of about £8,300,000; now they average £32,000,000.

Mr. Thornton has well observed: "The labourer there now receives in many instances three times the usual wages; is well clothed, instead of being half-naked; well fed, instead of being half-starved. The farmer has benefited by the enhanced prices of produce and the increased cultivation of the land; the merchant in the facilities for the transport and sale of his goods."

The revenue of India has doubled in the last quarter of a century, and the debt of India is only about two years' revenue.

Without railways India would not have advanced as it has done, for almost all over the country it is impossible to pass carriages along the roads (such as they are) during the rains.

Of the £94,500,000 expended on the construction of these Indian railways, all with the exception of about £1,300,000 has been raised in England. There are 56,127 shareholders registered in the United Kingdom, and about 5,000 stock and debenture holders,

who receive with certainty from 4 to 5 per cent guaranteed interest, a higher rate than they could obtain in the English funds. Of the 61,940 proprietors of stock and debentures, on the 31st December, 1872, all, with the exception of 842, are in England.

The general commerce of India since railways were introduced has increased at an enormous rate. In 1834-5, with no railways, it was £14,000,000 sterling. In 1854-5, when there were 150 miles of railway constructed, it amounted to about £35,000,000. From that time it increased at the rate of £8,000,000 per annum till 1865-6, when it amounted to £123,000,000 sterling. If it has not increased since that period it is owing to exceptional circumstances which will soon pass away.*

In our Indian empire we have a population of nearly 200,000,000 (exclusive of native States) under British administration, with a range of territory, and climate, and labour adequate to the production of almost everything we require for our food supplies or manufacturing industries. Has our Indian territory, then, not been useful to us, in the supplies it furnishes, and the manufactures it demands from us ?

The exports from Bombay, which are very largely carried by railway, have increased between 1849 and 1872 from £6,000,000 to £25,000,000. Mr. Danvers tells us that more than a penny per pound is saved by the railways in the carriage of cotton, and last year over 809,000,000 lbs. of cotton were shipped from India. The improvement of the material prosperity of the country is the end aimed at through all such works. To India, it has been well observed, England is indebted for wealth, for fame, and, in some degree, for the prominent station she holds among the nations of the world. Among the advantages we have derived are the employment of capital, with consequent extension in commerce, the greater security of the Indian empire, and the diffusion of our arts, science, and civilisation. During the last fifteen years an increase has taken place in the annual Indian revenue, in a great measure attributable to the railways, to the extent of £20,000,000 sterling.

Although railways have not yet made much progress in the West Indies, owing to a want of capital and a mistaken fear on the part of the planters that there is great danger of fires from the sparks of the engine, several small lines are in operation.

In Jamaica there has been for many years in successful operation about twenty miles, and an extension is proposed.

* W. T. Thornton, C.B., on the State Railways of India, before the Institution of Civil Engineers, Feb. 4, 1873.

On the east coast of Demerara a line of about twenty-six miles is in operation, and a proposal to extend it forty-four miles to Berbice is under consideration.

The Trinidad railway, long in abeyance, is forthwith to be commenced, and a railway which I projected for the Island of Barbados a quarter of a century ago is now to be carried into operation. As original promoter and secretary of this railway I feel some interest in its successful accomplishment, looking at the density of population, the large traffic to and from one port, and the great expense and loss of draught cattle over hilly roads. I obtained an island Act for it, the surveys were made and completed, and the shares placed. But the railway panic, and the failure of a West Indian firm at Liverpool—who were the largest shareholders and supporters—put a stop to proceedings in 1847. In Natal a scheme for a complete system of railways is in contemplation.

In Ceylon there is a line from Colombo to Kandy, and 17 miles more are to be completed early next year. In the Mauritius there are two lines, the Northern and Midland. The railway extensions in the Australian Colonies and New Zealand alone will afford employment to thousands of labourers and artisans for a length of time, and open up a vast extent of valuable land, in every respect suitable to pastoral and agricultural pursuits, and assist the development of mineral areas now neglected, owing to the difficulty of access and cost of carriage. There are nearly 1,200 miles of railway in operation in the Australasian Colonies, and hundreds more miles surveyed and in course of construction. Before five years have passed the total miles of railway in Victoria alone will not be less than a thousand.

In New Zealand large railway operations are being entered into by the Government, contracts having already been signed for about £1,200,000, of which three-fourths have been taken by Messrs. Brogden and Sons. The following table, though not quite complete, shows the work already done and projected:—

RAILWAYS IN INDIA AND THE COLONIES.

	Projected or Constructing, Miles.	Open, Miles.	Cost.
India .. ..	.. — ..	5,512 ..	£94,500,000
New South Wales ..	.. 283 ..	396½ ..	6,700,000
Victoria .. ..	.. 125 ..	338 ..	11,108,950
Tasmania .. ..	.. 120 ..	45 ..	..
Queensland .. ..	.. — ..	200 ..	..
South Australia ..	.. ..	57 ..	800,000
New Zealand: Canterbury	125 ..	39 ..	..
Mauritius .. ..	.. — ..	66 ..	1,400,000
Carried forward ..	653	6,653½	

RAILWAYS IN INDIA AND THE COLONIES (*continued*).

	Brought forward..	Projected or Constructing, Miles.	Open, Miles.	Cost.
	653		6,653½	
Ceylon	17	..	70	..
Cape Colony	85	..	63½	.. £754,000
Natal	340	..	5	..
Canada Dominion	919½	..	4,651½	..
Prince Edward Island .. ..		..	200	..
New Brunswick .. ..		..	375	..
Nova Scotia .. ..		..	229	..
Demerara	44	..	26	..
Jamaica .. ..		..	25½	..
Total		2,058½	12,299	

Accompanying the progress of railways, the cutting of canals, and the improvement of road communication in our vast Indian and Colonial Empire, is the construction of bridges; and although the matter falls chiefly within the province of the engineers there, yet it also furnishes employment for our workmen and forges, and for much skilled European industry. Much has been done in bridge communication in improving river and harbour navigation, which I need not advert to.

Railways, steam vessels, gas, and electricity are so many aids to Commerce, afford increased facilities for social and commercial intercourse, and promote the extended business progress of trade. Science co-operates, barrier after barrier falls, ocean after ocean is spanned, and civilisation, as has been pleasantly remarked, attended by her assistant genii, the Press, the steam-engine, and the electric telegraph, fast occupies each successive wilderness and waste. How much of the world's progress has been effected by the influence of navigation and commercial intercourse!

TELEGRAPHIC COMMUNICATION.—As regards telegraphic communication, submarine lines now connect us with Gibraltar and Malta, Aden and Bombay, Ceylon, Madras, and the Straits Settlements; thence through Java to Port Darwin; and land lines run on from thence to Adelaide, Sydney, and Melbourne, where the submarine cable takes up the communication thence to Hobart Town. A submarine cable was successfully laid between Singapore and Hong Kong, and opened to the public on the 8th of June, 1871. A submarine cable from Aden to Mauritius and the Cape Colony has been for some time proposed, and will, no doubt, ere long be laid.

To Victoria the credit is due of having laid the first line of electric telegraph in the southern hemisphere: this was the line from Melbourne to Williamstown, which was opened on the 1st March, 1854. There is now a network of telegraphic commu-

nication between the capitals and towns of importance in all the Colonies of Australia.

New South Wales has constructed telegraph lines traversing 5,579 miles, at a cost of about £200,000.

South Australia had 1,130 miles of land wires at the close of 1871, and since then the Transcontinental telegraph line from Port Augusta to Port Darwin, a distance of nearly 2,000 miles, has been successfully finished.

A line of wire has been laid by the South Australian Government, and is connected with the Submarine Cable to Java. By this means all the Australian Colonies are now in direct communication with Great Britain and the other countries of the Old World. Political and commercial events in Europe of the previous day appear in all the principal daily journals.

A submarine cable of 140 miles laid across Bass's Straits from Victoria to Tasmania is in successful operation, connecting Low Head with Flinders in Victoria.

The first telegraph was established in New Zealand in 1863, and at the close of 1871 there were 61 stations and 3,342 miles of wire, formed at an outlay of £250,000, and they will shortly have 4,500 miles in operation.

In India the telegraph system consisted, on the 31st March, 1872, of 15,326 miles of line, with 28,973 miles of wire, of which 4,620 miles of line are erected along railways. The gross expenditure has been £2,553,365.

The following table gives an approximate return of the miles of telegraph wire now in operation in India and the Colonies:—

	Miles.
India	28,973
New South Wales	6,114
Queensland	2,700
Victoria	3,472
South Australia	3,130
Tasmania	291
New Zealand	3,342
Canada	16,244
British Columbia	569
Jamaica	26
British Guiana	30
Mauritius	70
Ceylon	70
	<hr/>
	65,031

NAVAL AND MILITARY EXPENDITURE.—The cost to the mother-country of the military and naval expenditure for her Colonies has often proved a topic of grievance, but it is scarcely fair to charge the whole of this item to the Colonies, seeing that certain naval and military stations must necessarily be maintained for Imperial

purposes. But there has been a gradual reduction on this item of the Imperial estimates, and all the principal Colonies contribute largely under this head for their own local defence.

About ten years ago Mr. Henry Ashworth, of Manchester, read a paper before the members of the Society of Arts, on "Our Colonies, their Commerce and Cost," in which he took for his text, "The enormous armed force required for their defence, the civil, judicial, ecclesiastical, and other establishments, and the extraordinary amount of expenditure involved in the upholding of our authority in them." And what were the facts he was able to bring forward? That the entire expense of our Colonies falling upon the British Exchequer in the five years ending 1857 averaged something less than £4,500,000 per annum, and the whole military expenditure for 1858 was £1,681,000. This military expenditure is being gradually reduced; but what a trivial sum it is after all, compared with the great national interests at stake!

There are some outposts of the empire which we must maintain, and although included in the list of Colonies, they are chiefly looked upon as military and naval stations, such as St. Helena and Sierra Leone, Bermuda, Gibraltar and Malta, Halifax, Heligoland and the Falklands.

Mr. Westgarth, two or three years ago, in his paper "On the Relations of the Colonies to the Mother-Country,"* partially explained how the military expenditure for the Colonies was disbursed; but the sum which he then spoke of—about two and a quarter millions—has since been greatly reduced.

A parliamentary return issued last year stated the amounts included in the Army estimates for 1873-74 for military purposes in the Colonies would be £1,708,290, besides the cost of arms, accoutrements, and stores. Of this outlay about £238,300 was expected to be repaid by the African Settlements, Ceylon, and the Eastern Colonies, Mauritius and Malta.

Prior to the year 1870 it was the practice to keep a small detachment of Imperial troops in the Australian Colonies, but these have now been permanently withdrawn, and each Colony makes provision for itself.

In 1871 Victoria expended £29,506 on defences and land forces. She has a small corps of local artillery 138 strong, and a volunteer force of 4,000, consisting of 6 troops of cavalry, each numbering 42; 10 corps of artillery, 1 of engineers, and 13 corps of rifles, each numbering 150; torpedo and signal corps, &c.; and a naval brigade of 802.

* Vide Proceedings of Royal Colonial Institute, vol. i. page 74.

In 1871 New South Wales expended on account of its own defences, and for naval and military services, £65,913.

The British Dominion in North America has a large coast and frontier line exposed, and yet they have gallantly made efforts to relieve the mother-country of expenditure on this head. The militia of Canada consists of all male inhabitants between the ages of 18 and 60, and is divided into active and reserve; the former, consisting of 45,000 men, comprises the volunteer militia, the regular militia, and the marine militia.

It is evident from data that, in the event of war, sufficient numbers of men could always be obtained from the large militia reserve, to swell the ranks of the active force to any strength likely to be required; for it is a fact that the population of the Dominion comprehends nearly as many white men within the fighting ages as the Southern States of America ever brought into the field, and the men of Canada, both morally and physically, are not only equal to any that the world can produce, but in point of hardihood, manliness of spirit, and fitness for military service, are not to be surpassed. Although the military system of Canada is in its infancy, it may be said with truth that, if required for the defence of the country, the commander-in-chief has but to give the order, and in a very few hours more than 40,000 men of the active militia, who are at least admirably armed, would stand forth to form the first line of defence, animated with as much courage and determination to defend their Queen and country as has ever been exhibited by any nation, and their ranks might be hourly swelled by men from the reserve militia.*

The military government expenditure in Barbados in 1871 was a little over £81,000.

The total cost of the military establishment in British Honduras in 1871 amounted to £13,718, of which the colony bears about £5,000. There are no local forces, either of militia or volunteers, in the colony; nor is the number or material available from which such bodies could be raised with any hope of stability or efficiency.

MINERALS.—Let me now say a few words on the mineral resources of our Dependencies, by the large supply of which the mother-country so much benefits.

GOLD.—Our Colonial Possessions have greatly aided us with supplies of the precious metal which have kept our own and foreign mints actively employed. Since 1850, £118,129,505 in value of gold has been coined at the Royal Mint.† At the Calcutta Mint a gold coinage has been struck. Since January, 1871, the gold coins

* Lovell's "Dominion Directory."

† Wanting, years 1855-56.

struck at the Sydney branch of the Royal Mint are identical with those of the parent establishment. The total amount of gold coined at the Sydney Mint since it was opened, 14th May, 1855, to 31st December, 1872, was £32,354,000. At Melbourne a branch mint has also been opened for coinage since May last.

The imports of gold into the United Kingdom in the five years ending with 1855, according to the Customs returns, were as follows, but quantities brought in privately were unrecorded :—

1851	..	£11,500,000
1852	..	15,500,000
1853	..	21,000,000
1854	..	19,800,000
1855	..	17,300,000

£85,100,000

About 2,500,000 oz. were imported from Australia in each of the years 1856 and 1857.

Value of the registered imports of Gold into the United Kingdom from British Possessions in the last sixteen years (the imports were not officially registered before Nov. 1857) :—

		Australia.	S. & W. Africa.	B. N. America.
1858	..	9,190,665	122,084	3,818
1859	..	8,847,394	105,926	116,902
1860	..	6,860,660	109,024	32,636
1861	..	6,474,421	87,150	56,046
1862	..	6,876,568	108,960	62,855
1863	..	6,116,940	74,430	47,142
1864	..	2,878,966	99,602	122,393
1865	..	5,338,658	161,212	126,276
1866	..	7,119,754	126,708	153,372
1867	..	6,101,236	161,349	138,680
1868	..	7,286,467	127,355	169,518
1869	..	8,070,993	102,236	76,000
1870	..	6,809,114	116,678	213,820
1871	..	7,406,578	137,528	370,224
1872	..	6,127,791	109,159	35,400
1873	..	9,544,645	96,653	3,497

£111,050,850 1,846,054 1,728,579

The total estimated stock of gold in the world previous to the gold discoveries in California and Australia was about £560,000,000, and since then the stock of gold has been nearly doubled. Australia has contributed to this about £300,000,000 ; £30,000,000 has been also retained by Australia for her own purposes.

The gold exported from British Columbia by the Banks, &c. and as far as can be ascertained, from 1862 to 1871, was to the value of £3,400,000, exclusive of that carried away by the miners themselves, which is estimated at about one-third more ; so that it may be set down at £4,500,000 sterling. A mint and an assay office were established in 1861, and gold to the value of about £1,500,000 has been assayed, but the mint is not worked now.

The total yield of gold in Victoria up to September, 1872, as returned by Mr. R. Brough Smyth, in his Mining and Mineral Statistics of the Colony, is 40,868,772 oz., worth at 80s. per oz., £161,475,088. The yield and export of gold from New Zealand, from 1st April, 1857, to the end of 1872, was 6,718,218 oz., valued at £25,814,260, of which the North Island furnished 734,269 oz., worth £2,563,807. This gold is obtained by lode mining in igneous rocks belonging to the Neozoic epoch. The South Island furnished 5,983,979 oz., value £23,250,953, chiefly obtained from the metamorphic rocks by alluvial washing.

The mineral resources of New South Wales can be surpassed by no other country. The gold deposits are spread over a large area (13,656 square miles), and are proving richer than anything hitherto known in the whole history of mining. The coal deposits are inexhaustible, and copper, tin, Kerosene shale, and other mineral treasures abound. Enormous as the production and export of gold from Australia has already been, yet the oldest and most experienced gold miners affirm that this industry is in its infancy. Bold though this statement may appear, it is fully borne out by the daily discoveries of deposits of immense value. Crushings and retortings from the quartz mines yield the precious metal in cwts. and tons, as verified by the weekly returns of the Sydney Mint, where it is daily converted into the coin of the realm.

Notwithstanding the fact that within the last quarter of a century Victoria has exported gold to the value of £165,000,000 sterling, it is acknowledged by those who are competent to pronounce a trustworthy opinion on the subject, that the supply is virtually inexhaustible. Accident is constantly revealing fresh deposits, while science and experience are combining to instruct the miner how to simplify, cheapen, and improve mining and metallurgical processes and increase their results. The Secretary for Mines in the Colony, in his valuable work entitled "*The Gold Fields and Mineral Districts of Victoria*," asserts that the minimum of the area within which the miner may prosecute his labours with reasonable prospects of success is certainly not less than 20,000,000 acres, of which considerably less than 1,000,000 acres have been explored up to the present time. Therefore the magnitude of the yield, as exhibited by the exports up to the present time, far from being an indication of diminished returns, points to a still greater development hereafter of the leading industry of the Colony, by the application to it of better appliances, more skilful systems, and increased capital, seeking a permanent investment in preference to a mere speculative outlay.

VALUE OF THE GOLD EXPORTED UP TO 1872, FROM—

New South Wales	..	..	..	..	£80,000,000
Victoria	..	..	..	..	163,839,705
South Australia *	..	..	..	..	—
Tasmania *	..	..	..	..	—
New Zealand	..	..	..	..	25,814,260
Nova Scotia	..	..	..	..	948,000
British Columbia	..	..	..	..	4,500,000
					£275,101,965

COAL.—Mr. Eddy, in his paper “On the National Distribution of Coal throughout the British Empire,” has shown us that along the eastern coast of the continent of Australia and in Tasmania we have fields of coal, as well as in New Zealand, at Labuan, and in various parts of India, in the Cape Colony and Natal, in Nova Scotia, Vancouver, British Columbia, and Newfoundland.

The Canadian Dominion has coal-fields of immense extent in the provinces on both its coasts, and it is believed that the largest coal deposit of the world lies under the surface of its rich and immense tracts of prairie lands east of the Rocky Mountains. The sales of coal in British Columbia from the local mine have been upwards of 330,000 tons in the ten years ending with 1870.

It is probable that Nova Scotia, in proportion to its extent, stands unrivalled in the productive capabilities of its coal fields. In 1851 only 115,000 chaldrons were raised in the province, but in the last three years the average has been 500,000 tons; 2,639 hands are employed in the collieries.

The Governor of Newfoundland in his last report states: “That coal exists over a large area on the western side of the island has been ascertained beyond a doubt,” and this must be reckoned as an exceedingly valuable discovery. In 1868 Professor Bell, of Canada, visited the neighbourhood of St. George’s Bay, and found a fine workable seam of coal. Mr. Murray, the island geologist, calculates that the area of this solitary seam, even supposing there were no others to be found, is 38 square miles, and allowing a thickness of 3 feet, there would be 54,720,000 chaldrons of coal. It is not to be supposed that the whole of this is accessible, but there can be no doubt that most of it is within working depth. The proximity of this splendid coal-field to Canada, and the facilities it presents for coaling passing steamers, need not be hinted at.

Governor Hill adds: “That during the past few years proofs as to the existence of valuable mineral deposits have multiplied so rapidly that there are not unreasonable grounds on which to base an affir-

* I have not the collective figures for these Colonies.

mation that the island is destined to become one of the world's great mining regions." We should not, therefore, depreciate or slight any one of our Possessions. In the revolutions of commerce, of settlement, or exploration, we know not of what future importance they may become. Newfoundland has hitherto been looked upon as a mere fishing station; but its agricultural and mineral capabilities may yet develop into high importance and value.

"The position of the various stores of coal in the Pacific is of extreme importance as an index to the future distribution of power in that portion of the world; but it is not enough to know where coal is to be found without looking also to the quantity, quality, cheapness of labour, and facility of transport. Tasmania has good coal, but in no great quantity, and the beds nearest to the coast are formed of anthracite. The three countries of the Pacific, which must for a time at least rise to manufacturing greatness, are Japan, Vancouver's Island, and New South Wales, but which of these will become wealthiest and most powerful depends mainly on the amount of coal which they respectively possess, so situated as to be cheaply raised."*

In New South Wales the coal area is said to be 120,000 square miles. In Queensland the same area is supposed to exist.

In 1846 less than 39,000 tons of coal were raised in the New South Wales Collieries; in 1872 the quantity had increased to over 1,000,000 tons, and in the quarter of a century nearly 6,000,000 tons have been exported, besides what was locally consumed.

The quantity of coal raised from the New South Wales mines to the end of 1871 was 9,816,693 tons; and of this 5,885,493 tons, valued at £3,790,223, were exported. The area under lease for coal mining up to the end of 1872, was 34,720 acres. The New South Wales coal is well adapted for steam purposes. It is burnt in all the steam ships trading to the southern hemisphere, and meets the English coal in the markets of India and China at equal prices. The Imperial Government has issued instructions to the effect that the squadrons of the British navy shall henceforth be supplied with Australian coal.

Mr. T. Hughes, C.E., in his report dated January, 1873, states that, taking the coal-fields already partially and in whole examined in India, and allowing for the unsurveyed portions of Central India, Assam, Burmah, and the Tenasserim provinces, &c. we may safely assume the area over which coal-rocks abound at 85,000 square miles.

In India, the Raneeunge coal-field alone contains from 100 to

* Dilke's "Greater Britain."

120 feet of workable seams, and the quantity is estimated at 14,000,000,000 tons. According to Dr. Oldham, only one or two kinds of Indian coal come up to the average of the English specimens. The quantity of Indian coal used in Bengal from 1859 to 1866 by the railways and steam-boats on the Ganges was 2,700,000 tons. The quantity of English coal that was imported during that time was 332,000 tons.

MINERALS.—The produce of the mines of South Australia in the ten years ending with 1867 reached in the aggregate the sum of over four and a half millions sterling, chiefly copper. In the next four years ending with 1871, the shipments amounted to £2,473,833. The Burra Burra, the Wallaroo, and the Moonta Mines have all been most fortunate undertakings. For the latter not a penny of capital was ever subscribed. It is divided into 32,000 shares, which are quoted at £22 5s. per share. Thus a property which cost the shareholders nothing is now valued at £712,000. On these mines dividends amounting to £728,000 have been paid. There is every reason to believe that copper mining will be one of the most permanent and productive of Australian industries.

The fine collections of Australian minerals—gold, copper, coal, &c.—sent to the various International Exhibitions were the admiration and envy of European geologists and mineralogists, and at present grace many of the principal public museums. The large block of copper ore from South Australia, which was shown near the Australian Annexe at the London Exhibition last year, weighing six tons, gave evidence of the richness of these mines; as did the gossany ore containing carbonate of bismuth, and the ingots of metallic bismuth; the cakes and ingots of copper from the Moonta and Wallaroo Mines, the malachite, and the iron ores.

Tin-fields of unexampled richness have been discovered in Queensland, the presence of the metal being detected over an area of 550 square miles, chiefly in the watershed of the Severn River. It is probable that the lodes and veins will prove a source of great wealth, and perhaps render Australia one of the first tin-producing countries in the world.

Mr. Smyth states that nearly all the creeks and gullies in the vicinity of Beechworth, Victoria, are stanniferous, and will undoubtedly be worked for that mineral in the future, and from the large number of tin-bearing lodes and deposits of stream tin, tin will yet be one of the products of the district; 3,712 tons of tin ore, and 79,000lbs. of tin, have already been shipped. Of antimony, 316½ tons of the metal, 200 tons of regulus, and 5,751½ tons of

ore, have been also shipped from Victoria. Quite pure metallic bismuth has been obtained in districts of Victoria.

There is a pretty little parable which I may be pardoned for quoting. It sets forth that : " Before man was created, and when the heaven and earth were without form and void, God made the metals. And He locked them up in the coffers of stone, and setting huge rocks upon them, buried them deep under the ground. And after He had made the gold, and the silver, and the copper, and was proceeding to make the iron and the lead, Peace bent down her head and, weeping, cried, ' Make them not, merciful Father ! make them not ! For though Thou lockest them up in coffers of stone and hidest them in the bowels of the earth, man will find them out and use them to slay his brother, and I and my sister angels will have no resting-place on earth.' "

" But the angel of Wisdom rose up and cried, ' Make them, O Lord ! make them ! for man, after a time surfeited with slaughter, shall, with the iron, set a girdle round the earth that will prove a surer safeguard than the sword, and bind tribe with tribe, till the whole human race shall be linked together by it into one family. And the lead he shall cast into tiny tongues, wherewith the best and wisest of mankind shall speak with their distant brethren, and pour their minds into those of their less gifted neighbours ; and making their voice heard by it far beyond the cannon's roar, shall tell the whole world of the wondrous beauty of Thy works.' "

The Colonies have shown their sympathy and interest in the mother-country in various ways. £70,000 was collected and forwarded from New South Wales alone, for the Patriotic Fund after the Crimean war, and the Famine in Ireland, and the Indian Mutiny Fund also brought forward liberal contributions from the Colonies. In the various British and European International Exhibitions, India and the Colonies have taken a large interest. At London in 1862, the Australian Colonies spent, collectively, about £20,000 ; Canada, £8,000 ; and Vancouver, Jamaica, Mauritius, and several others, about £1,000 each. At Dublin in 1865, and at Paris in 1867, they also made creditable displays of their products.

£7,000 was spent jointly by the Australian Colonies, for the London Exhibition of last year (1873), and large sums were also voted for contributions and expenses for the Vienna Exhibition.

In the report of the Royal Commission of Victoria presented to His Excellency the Governor, it is well observed of these Colonial exhibits, that " a striking and desirable effect will be produced upon the visitors with regard to the commercial relations existing between Great Britain and Australia, and the ties of national kindred and

interest which unite these people, now brought into almost instantaneous communication with each other by the completion of the electric telegraph. The succession of annual Exhibitions to be held in London, as well as those to be held in other parts of Europe, will afford opportunity for the exercise of national amity and for the reciprocal interchange of commodities which will enrich our museums, and promote the better knowledge and cultivation of science and arts. They will operate as a stimulus to local enterprise, give repeated means of bringing under the eyes of the people of Europe the various resources of this important division of the globe, of sustaining the interest felt in the affairs of these growing communities, and, as may be hoped, tend to animate the inhabitants of this division of the Empire with a spirit of mutual good feeling, and a desire to work together for the common good."

TRADE WITH THE COLONIES, AND SHIPPING EMPLOYED.—No one will deny that our various Colonies in the Pacific are calculated to be of inestimable future advantage to Great Britain, both as naval stations, and as fields for British industry and enterprise. But all our Colonies have some special value, and the increase in the shipping trade with them has been considerable.

TRADE WITH THE COLONIES IN 1848.

	Ships employed.	Inwards. Tons.	Ships employed.	Outwards. Tons.
Malta	53	7,785	303	68,853
Gibraltar	51	14,382	170	30,163
Ionian Isles	83	10,874	74	11,614
Africa	575	168,869	619	187,263
Asia	708	341,675	781	398,192
British North America..	2279	886,696	1766	668,087
British West Indies ..	704	199,589	798	237,258
Falklands	—	—	3	873

The following figures show the number and tonnage of vessels that entered with cargoes (including repeated voyages) at home ports, from British Possessions, in 1872.

	Vessels.	Tonnage.
European Settlements	1,585	267,963
African	162	75,565
Eastern	853	945,418
Australian	253	220,492
N. American	1,407	1,051,683
West Indian	537	176,351
S. American	113	51,005
	4,986	2,788,477

being in the proportion of more than one-fifth of all the tonnage entered.

The number of vessels that cleared with cargoes was still larger, being 5,201 vessels of 3,043,260 tons, or nearly one-fourth of the

whole outward tonnage; of these 1,485 were steam vessels, measuring 1,056,710 tons.

Liverpool, London, Bristol, Cardiff and Swansea, Plymouth, Gloucester, Southampton, Weymouth, Hull, and the Tyne ports, Dundee, Glasgow, and Greenock, Belfast, Cork, Dublin, Limerick, and Waterford, are the principal ports interested in Colonial trade.

COLONIAL SHIPPING.—Let us now look at what the Colonies have done in acquiring shipping for their own coasting requirements:

VESSELS REGISTERED BELONGING TO THE COLONIES IN 1848.

			Vessels.	Tons.
Africa and Mauritius	..	..	195	13,360
Australia	..	..	638	46,291
British North America	..	..	5,385	417,818
West Indies	..	..	741	20,524
			6,959	497,993

Then there were only 115 steamers owned in the Colonies.

In the last quarter of a century the tonnage owned by the Colonies has nearly trebled, and they now own 670 steamers. The vessels built and registered in the Colonies in 1872 were 675, measuring 2,565 tons, of which 39, of 2,565 tons, were steam vessels. In that year the Dominion alone built 389 vessels, measuring 106,081 tons.

The Colonies have now a very fair mercantile marine of their own, which is daily being added to, and gives employment to 80,085 seamen.

VESSELS REGISTERED BELONGING TO THE COLONIES IN 1872.

The number of vessels belonging to the British Possessions in 1872 was 11,028, measuring 1,462,502 tons, of which 670, of 102,607 tons, were steam vessels. They may be thus classified:—

			Vessels.	Tons.
Mediterranean	..	..	212	39,044
Africa and Mauritius	..	..	236	24,660
India and Hong-Kong	..	..	910	185,061
Australia and New Zealand	..	..	1,860	199,091
British North America	..	..	6,633	937,439
West Indies, &c.	..	..	1,177	77,207

And this does not include all, for the Registrar-General of Shipping complains of the absence of late returns from many of the Colonies for several years.

There were 675 new vessels, measuring 125,289 tons, built in the British Possessions in 1872; of these 459 were constructed in British America, 94 in Australia, 48 in India and at Hong-Kong, and 49 in the British West Indies.

EXPORT TRADE.—In 1847 our total exports were only valued at £58,842,377, and of this aggregate £15,386,368 went to India and the Colonies. The total value of the exports from our Possessions

to the United Kingdom in 1852, as far as can be ascertained from the defective accounts published, was £27,831,133, and of the imports of produce and manufactures of the United Kingdom, £22,574,739.

The following statement will show the extent to which the Colonies are contributing to the wealth of the mother-country especially, and the world at large in general:—

EXPORTS, INCLUDING BULLION AND SPECIE, FROM COLONIES IN 1850.

India and Eastern Colonies	£20,523,699
Australasian Colonies	3,648,178
African Colonies	1,700,701
North American Colonies	5,044,413
West Indian Colonies, including Bermuda	3,097,818
Mediterranean Colonies	281,823
South African Colonies, British Guiana, Honduras, Falklands, &c.	1,077,996
	<hr/> £35,374,628

EXPORTS IN 1871.

India and Eastern Colonies	£74,109,009
Australasian Colonies	34,581,472
African Colonies	4,946,731
North American Colonies	15,379,657
West Indian Colonies	5,600,889
Mediterranean Colonies	7,413,313
South African Colonies, British Guiana, Honduras and Falklands	7,927,815
	<hr/> £149,957,886

In 1850 the value of the imports into New Zealand was only £240,205, and the exports £115,416. In the year ending June, 1872, the value of the imports into the Colony was £5,142,951, and of the exports £5,190,665, of which wool figured for £2,500,000.

RAW MATERIALS.—The raw materials which furnish employment to our great manufacturing industries have been of late years pouring in upon us in greater quantities than ever. The world throughout its utmost extent has been ransacked; its productive resources have been stimulated with unceasing assiduity and energy; enormous fleets of busy merchantmen are ever traversing oceans and seas, laden with produce destined for the British market; and yet, notwithstanding this universal and constantly increasing stream of raw material into our manufacturing districts, we hear on every side the complaint—"We have not enough; give us more, and yet more!" In all cases the demand quite outstrips the present supply, vast though it be, and we even hear it asserted that our industrial progress is, in many instances, seriously impeded thereby, to the great detriment of the nation at large. This condition of things does not, however, furnish any just cause for complaining; on the contrary, it affords the strongest grounds

for congratulating ourselves as a nation on the wonderfully expansive character of our manufacturing and commercial industry.

TIMBER SUPPLIES.—An article of necessity for which we are largely dependent on our Colonies is timber. Although iron has come so extensively into use as a building material, it has not yet superseded wood ; indeed, the demand for timber is more extensive than ever, arising from the enormous building operations carried on throughout the country. In 1851 we only received about 2,000,000 loads of Foreign and Colonial timber, but now we require 5,000,000 loads.

Of the 5,000,000 loads of wood of different kinds imported in 1872 from all quarters, over 1,300,000 loads were received from British Possessions. Of the aggregate value of this wood, £14,200,000, that received from the Colonies represented a value of over £4,712,000.

It is estimated that between 25,000 and 30,000 men are engaged every winter as shanty-men or wood-cutters in Quebec. About 4,000 horses are also employed in hauling the logs and squared timber to the banks of the rivers. On an average the value of the timber exported from the province of Quebec reaches the sum of £2,000,000 sterling.

In Canada, according to a report of the Hon. James Skead, the average quantity of timber got out yearly is nearly 87,000,000 of cubic feet. The timber trade employs in the forest above 15,000 men, and in the partial manufacture of timber over 2,000 mills, and at least 10,000 men. It further employs at Quebec about 1,200 vessels, of an aggregate freight capacity of 700,000 tons, besides 500,000 of lake and canal tonnage ; 17,000 seamen are engaged in carrying its products from Quebec to Europe, and 8,000 more in their transportation on inland waters.

In British Columbia and Vancouver the Douglas pine, with its straight uniform trunk, often 200 feet high, and exceedingly tough and pliable, furnishes the finest masts and spars for the largest class of vessels.

IMPORTS AND VALUE OF WOOD RECEIVED FROM THE COLONIES AND INDIA IN 1872.

	Loads.	Value.
Hewn fir, from British North America ..	.. 340,943	£1,307,505
„ unenumerated „ „ ..	.. 52,231	203,714
„ Oak „ „ ..	.. 57,033	325,065
Teak, from India .. ..	.. 28,657	378,213
Timber, from British Guiana .. ..	.. 1,226	9,739
„ sawn or split, British North America ..	770,448	2,159,983
„ unenumerated „ „ „ ..	24,843	72,065
„ „ British India	1,547	17,127
Carried forward ..	1,276,928	4,473,411

	Brought forward..	1,276,928	4,473,411
Staves, British North America .. ..	..	17,150	134,526
Mahogany, British West Indies and Honduras		8,376	72,307
Unenumerated Furniture woods „ „ ..		1,278	13,481
„ „ British North America		2,672	18,556
		1,306,404	£4,712,281

In ship-building, about 40 cubic feet are required per ton for the hull and fittings, so that a ship of 1,000 tons requires 40,000 cubic feet. In the United Kingdom about 350,000 tons of mercantile shipping are built annually for ourselves, exclusive of those built for foreigners, and vessels of war. There are upwards of 7,000,000 tons of mercantile shipping registered in the British Empire. To keep these and our Royal Navy in repair, and to build new vessels, draws heavily upon the forests of the world.

In British Guiana the woods for building and other purposes equal those of any other part of the world : 115 kinds are enumerated. The fitness of these timbers for naval architecture is admitted.. The Greenheart, the Mora, and the Souari are well adapted for ship-building, and the two former are now the approved woods on Lloyd's Register. Australian hard-woods and iron bark are admitted by Lloyd's into the ten years' classification of woods suitable for the timbering of vessels, while Mora is placed in a lower grade ; and yet reliable tests give to the latter as good a character as the former for durability. British Guiana is able to furnish the finest and most lasting timber in the world, and in quantities sufficient to supply all the ship-building establishments in Great Britain.

At some time or other we may have to seek wood for ship-building from foreign countries, but not yet. Our Colonies have not failed us, but can still furnish large supplies. Timber is of essential importance to the commerce and naval power of Great Britain, and the uncertainty, or rather total insufficiency, of our home supplies, with the precarious dependence to be placed on foreign imports, renders the preservation of our Colonial timber of great importance. From 1847 to 1860 we received 250,231 loads of teak from India, and the average annual imports of timber and wood from thence is to the value of £250,000.

Valuable papers by Mr. Hull and Mr. Calder, of Tasmania, on the timbers of that island, were read before the members of the Institutelast year, and are published in the Transactions;* and I am informed that Mr. W. Walker is preparing a descriptive paper on the valuable woods of British Guiana, which I have only been able incidentally to touch upon.

WOOL SUPPLIES.—A good supply of wool is essentially important

* Vide vol. iv. pp. 169-173.

to our commercial greatness, and to the continued prosperity of our woollen manufactures. Large as the imports are, Continental countries compete in our markets; already our manufacturers are beginning to complain of insufficient supplies, and where but to our Colonies are we to look for increased quantities? All the British Possessions have made immense strides in their production of wool. Australia and New Zealand, the Cape Colony and Natal, British India and Canada have largely increased their number of sheep and their yield of wool.

The produce of Australian wool especially has become of vital importance to Commerce and Manufactures, for of the 302,500,000 lbs. imported in 1872, about 173,250,000 lbs. came from Australia. In 1845 Australia only sent 24,000,000 lbs. to the United Kingdom.

A quarter of a century ago the Cape Colony exported a little over 2,000,000 lbs. of wool. In 1873 we received from our South African Colonies 42,332,000 lbs.

The appended figures show the relative proportions of our Colonial and Foreign wool supplies, in pounds :—

	1855.	1872.
Australasia	49,142,000	173,201,712
British India	14,283,000	18,474,409
South Africa	11,075,000	35,619,568
British North America		340,118
Total	74,500,000	227,635,807
Foreign Countries *	24,800,000	174,865,128
Total Imports	99,300,000	402,500,935
Re-exported	29,453,000	137,507,126
Left for consumption	69,847,000	264,993,809

The following table shows the comparative progress in wool production, as evidenced by the imports into the United Kingdom in bales, which average about $3\frac{1}{2}$ cwts :—

	1862. Bales.	1873. Bales.
New South Wales and Queensland	59,130	128,695
Victoria	86,070	209,675
Tasmania	16,862	14,693
South Australia	32,800	74,918
West Australia	2,290	6,275
New Zealand	26,658	117,738
Total Australasian	223,810	551,994
Cape and Natal	66,841	156,027
East India	2,821	2,270
Total Colonial	293,472	710,291
Total Foreign	44,451	39,836
Total Imports	337,923	750,127

In 1856 there were in the United Kingdom 525 worsted and 1,505 woollen factories, employing together about 167,000 hands; in 1869, 2,579 factories, employing about 240,000 operatives.

In 1850 the value of woollen manufactures and yarn exported was £10,000,000; in 1873 it had reached £30,683,218.

COTTON.—If we take next the article of cotton, how small was our supply from British possessions in 1847 to what it is now. Then we were chiefly dependent upon the United States and other foreign countries. The Colonies and India only sent us—

						Lbs.
From the Bahamas	..	..	..	..	..	54,826
„ West Indies and Guiana	..	..	..	..	..	739,107
„ India	..	..	..	..	..	83,934,614
						<hr/> 84,728,547
The total imports being	..	..	..	..	..	474,707,615

What do we find now? Out of 12,578,906 cwts. imported in 1872, nearly 4,000,000 came from British Possessions, as follows :—

India	..	..	..	..	..	..	3,034,546
Australia	..	..	..	..	..	..	29,083
British North America	..	..	..	..	..	..	3,168
West Indies	..	..	..	..	..	..	11,450
							<hr/> Cwts. 3,078,247

Or over 445,500,000 lbs.

Although the aggregate imports of cotton were larger in 1873 (13,693,472 cwt.), the proportion from our own Possessions was somewhat less.

JUTE.—Jute is another textile fibre for which we are dependent exclusively on India, and which by its progress has given active industry and wealth to the town of Dundee, where there are 59 mills, ranging from four to eight stories high, the largest employing 5,000 hands, and working up 1,000,000 lbs. of jute weekly. In 1851 the value of the jute shipped from Calcutta was only £197,000, in 1873 it had risen to £4,142,548 for the raw material. The larger supplies of this material now give employment to upwards of 63 factories, with 453 carding and combing machines, and engage actively 18,000 operatives. In 1873 the total importation of jute here was 232,177 tons, as compared with 46,983 tons in 1863.

Still, many of our principal British manufactures are not progressing so extensively as they might do for the want of increased supplies of raw material. This is especially the case in the silk manufacture, in the cordage and paper industries. We want more silk from our own Possessions. We want some substitute for esparto grass in larger quantity, and are obliged to be content with wood pulp, bamboo, and other short fibres for paper. The fruit trade in this country might be still more extended with profit from our Colonies, especially in oranges, pine-apples,

bananas, and other tropical fruit, which are a good deal monopolised by the Americans.

Australia has begun to send us flax: about £16,000 worth was imported in 1872, and hemp valued at £53,000; whilst India and Ceylon sent us vegetable substances applicable to the same purposes, valued at £88,000.

India produces silk to the value of £1,500,000, and supplies us with raw silk to the value of £524,000, many of our Colonies too are now making efforts to produce this valuable and much-wanted fibre.

For oil-seeds, oils, and fats we are now mainly dependent on our own Possessions, as the following statistics will show, taken from the trade imports of 1872:—

OIL SEEDS.				
Linseed, valued at	..	..	..	£1,144,942
Rape seed „	..	..	..	184,099
Other seeds „	..	..	..	81,572
Oil nuts and kernels, valued at	..			340,000
				<hr/>
				£1,750,611
OILS.				
Cocoanut oil, valued at	..	..	..	786,782
Palm oil „	..	..	..	1,750,000
Seed oil „	..	..	..	19,475
Other oils „	..	..	..	69,000
Essential oils „	..	..	..	28,900
				<hr/>
				£4,403,868

Passing to animal oils and fats, of tallow we now receive nearly one-half our supplies (505,000 cwt. valued at £1,000,000) from Australia.

In 1845 we only received 38,072 cwt. of tallow from British Possessions out of a total import of 1,100,000 cwt. In 1847, 6,542 casks of about 7 cwt. each reached us from Australia. In 1848, 286,392 sheep and 38,642 head of cattle were boiled down in New South Wales, producing 88,567 cwt. of tallow. In 1850 there were 94 boiling-down establishments in the Colony, at which 292,416 sheep and 60,385 cattle were converted into 128,330 cwts. of tallow.

Even in 1869, 230,550 sheep were boiled down for tallow in New South Wales. In the last quarter of a century the older Colony has sent us tallow valued at nearly £3,000,000, and Victoria has also shipped in the same period tallow valued at over £2,000,000. These Colonies are, it is true, beginning to use up some locally for soap and candle manufactures, but they can still spare us large quantities.

Of fish and train oil and spermaceti, the Colonies supply us to the value of about £400,000.

For furs and skins we are also largely dependent on our own Possessions. The imports in 1872 were to the following value :—

Goat and kid skins	..	..	..	£622,590
Seal skins ..	..	..	..	97,795
Sheep and lamb skins	..	..	..	399,263
Furs ..	..	..	..	271,873
Other skins, &c. ..	..	..	..	44,722
				<hr/>
				£1,436,243

The Hudson's Bay Company used to supply us with 650,000 to 700,000 furs and skins of different animals annually. The value of the furs, &c. exported from British Columbia in 1869 was £48,420.

In 1847, out of a total of 601,381 cwt. of raw hides received, 157,426 came from British Possessions. In 1872, out of a total of 1,436,352 cwt., 579,665 cwts., valued at £2,079,616, came from British Possessions: this is besides a certain quantity of tanned or dressed leather. In 1847 we received 135,178 lbs., of leather. In 1872 there were imported 10,613,834 lbs. of the value of £508,963. Victoria has sent us since 1850 hides and skins valued at £1,500,000. Again, of horns we received from British Possessions in 1872, 3,553 tons, of the value of £113,004.

Of copper ore in 1872, 18,442 tons came from British Possessions and 1,110 tons of copper regulus, besides 12,320 tons unwrought or partly wrought.

Tin we now import from our own Possessions, to the value of £937,600; plumbago, £55,376; lead ore, £6,534.

Among the miscellaneous articles used in manufactures and derived from the Colonies, are about 56,000 cwt. of pearl and pot ashes from Canada; 5,000 tons of asphalte from Trinidad; 286,000 cwt. of mimosa and other tanning barks from Australia; bark extract from Canada, valued at £22,000; 855 tons of bones from Australia. Of India-rubber nearly 53,000 cwt., or more than one-third of our whole supply, came from British Possessions; chemical products to the value of £53,000; cordage and cable yarn, worth £233,345; of cotton our Possessions supplied us with nearly 4,000,000 cwt.; of gambier and cutch, 26,000 tons; of drugs unenumerated, £97,000; opium, £9,000; indigo worth £1,912,000; sulphur, £59,000, unenumerated dye-stuffs, £55,248; and dye-woods, 53,200 tons. Galls and myrobalans for dyeing and tanning, valued at £277,000; gums and resins, £653,820; saltpetre, £326,000; ivory, £150,000; beeswax, £24,235; and gutta-percha, £350,000.

WHEAT AND FLOUR.—The superior quality of Australian grain and flour is now universally known and understood in the United Kingdom, India, China, the Cape, Mauritius, and other parts of the world.

At the various International Exhibitions the fine Colonial wheats from Canada, the Cape Colony, Victoria, South Australia, and New South Wales, attracted much attention for their size, weight, and whiteness.

The imports of wheat into the United Kingdom fluctuate according to the yield of our own harvest, but are gradually getting larger, having risen from 11,000,000 cwt. in 1848 to 42,000,000 in 1872. Our Possessions beyond the seas contribute already somewhat largely to our wants, and can do so still more extensively when required. In 1872 we received from India and the Colonies nearly 3,000,000 cwt. of wheat and 382,223 cwt. of flour, 3,558,000 cwt. of maize, besides large quantities of sago, arrowroot, &c. amounting in value to £345,000. Of rice from India the imports in 1872 were valued at nearly £3,500,000. Of fruit, raw and preserved, our Colonies supplied us to the value of £127,000.

COFFEE.—The growth of coffee has been transferred from the West to the East Indies, because labour is more abundant, certain, and cheap. In the East the production in Ceylon, Malabar, and Mysore is now enormous and progressive.

In the fifteen years ending with 1850, Ceylon had exported 2,250,000 cwt. of coffee, and in the fourteen years ending with 1862 the Ceylon planter sent into the markets of the world 6,571,618 cwt., valued at about £15,000,000 sterling. In 1870 the crop reached 890,000 cwt., and the out-turn will soon exceed 50,000 tons.

Of the coffee taken for consumption in the United Kingdom in 1853, of 37,000,000 lbs., 25,000,000 lbs. were received from India and Ceylon, and 2,750,000 lbs. from the West Indies and British Guiana. In 1873, of the largely increased imports (188,571,936 lbs.) nearly 125,658,736 lbs. came from British Possessions.

Coffee cultivation is spreading in several of our Colonies. In Natal some progress has been made with the tree, although for want of care in manuring the soil the trees have begun to degenerate.

SUGAR.—There can be no doubt whatever that the consumption of sugar in Great Britain is still susceptible of a very large increase, and that our tropical Possessions are capable of producing much larger quantities.

In 1847, of the total imports of 8,209,527 cwt., 5,800,546 cwt. were furnished by our Colonies. In 1872 out of 13,776,696 cwt. India and the Colonies only supplied 5,139,509 cwt. And yet some of our Colonies are progressing in their production. In 1871 Jamaica exported 37,000 hhd., a larger quantity than for nineteen years. British Guiana, Trinidad, and Barbados produced increased

crops, and Natal is progressing. In the crop year, 1848-9, Mauritius exported only 53,000 tons of sugar; in 1871-2 there was shipped 124,000 tons.

In 1850 the individual consumption of sugar in the United Kingdom was but 25·36 lbs.; in 1872 it was about 50 lbs., including molasses, and now it is asserted to exceed 53 lbs.

It is evident that the production of sugar must greatly increase in quantity, and still more improve in quality, before the consumption can increase as rapidly as of late years. If sufficient supplies were available, the present deliveries of about 2,000,000 tons per annum in Europe and North America might be doubled in a few years, as the only large ratio of consumption of sugar is in Great Britain and the United States.

In 1855, when the duty was reduced to 13s. 5d., and the market price of sugar was 40s. 2d. (4½d., per lb.), the consumption was then 30½ lbs. per head. In 1872 the average rate of duty being but 4s. 10d. per cwt., the consumption had reached nearly 48 lbs. per head. What it will be at the present average of only 2s. 5d. we have yet to see; but when wholly freed it will certainly be a good deal more than 1 lb. a week per head of all ages, which it is quickly rising to even now. No other European country approaches near to so large a use of the great sweetener.

For spices we are mainly dependent on our Colonies, and we paid for cinnamon to Ceylon in 1873, £116,144; for ginger to the East and West Indies and Africa, £97,533; for pepper to India and the Straits Settlements, £820,620; and for nutmegs, mace, cayenne, and unenumerated spices, £174,042. Of Indian tea we imported in 1873, 20,326,882 lbs.; and, spreading as the cultivation of tea is in India, if we could depend upon obtaining increasing supplies of this strong unadulterated article, it would be a great boon to commerce. Of cocoa, out of 19,600,000 lbs., one-half is supplied by our Colonies; of 7,000,000 gallons of rum, nearly all (6,208,750 gallons) came from the Colonies. They also sent us 145,000 cwt. of molasses; of wine 66,283 gallons were received; and, lastly, of another article subject to duty which our Possessions can produce in immense quantities, tobacco, there was received—

			Lbs.	Value.
Unmanufactured	..	..	1,456,423	£54,910
Manufactured	..	..	84,756	16,073
			<hr/> 1,541,179	<hr/> £70,983

Of animal food products our supplies from the Colonies are increasing year by year. From British America we received cured

pork valued at £155,000 ; 30,367 cwt. of bacon, and 4,452 cwt. of hams from Canada, and a small quantity lately from Australia ; 5,200 cwt. of salted beef from Canada, and 8,000 cwt. from Australia ; 11,518 cwt. of butter from Australia, 55,500 cwt. from British North America ; and 110,420 cwt. of cheese from Canada.

The meat-preserving industry of Australia is one which is watched with very great interest, both in this country and on the Continent, and although the various attempts to bring fresh meat from a distance have not yet been successful, Science has conquered greater difficulties than these, as our retrospect of the discoveries and inventions brought to bear on the progress of the Colonies will have proved. If the gulf can be bridged over so as to bring cheap Australian meat within the reach of the European population, it will be of high advantage to both.

All the Australian Colonies seem to be turning their efforts towards converting their surplus stock to food for Europe, instead of sending them to the melting pot. There are now nineteen salting and meat-preserving establishments in New South Wales, and at nearly all the large factories Appert's and Liebig's processes are used.

In 1862 that Colony shipped 20 packages of preserved meat, and in 1871 57,830 packages, valued at about £153,000. In the same year Queensland shipped 1,500,000 lbs. of preserved meat, besides extract of meat, all valued at about £80,000.

From Victoria in 1867 the shipments of meat were only valued at £5,860 ; in 1871 they had risen to £364,475, the quantity being nearly 15,000,000 lbs. There are now in the Colony 22 meat-preserving establishments, all using the vacuum process. South Australia and New Zealand are also entering vigorously on this business. In 1868 we only received 30,000 cwt. of preserved meat from Australia, but in 1872 the imports rose to 318,616 cwt., valued at £730,871.

Live stock in the Australian Colonies in 1850 :—

	Cattle.		Sheep.		Horses.
New South Wales	1,374,968	..	7,092,209	..	111,458
Victoria	346,562	..	5,318,046	..	16,733
South Australia	68,296	..	897,866	..	6,488
Western Australia.. ..	11,000	..	142,000	..	2,100
Tasmania	82,761	..	1,822,322	..	18,391
New Zealand	29,887	..	160,166	..	2,723
<hr/>					
Total in 1850	1,913,474	..	15,432,609	..	157,893
Total in 1872	4,726,600	..	50,346,422	..	—

The progress made in the pastoral industry of the Colonies, on which our supply of wool, hides, and tallow mainly depends, is shown in the following account of the live stock

in the Australian and other Colonies according to the latest returns :—

Australasian Colonies :		Cattle.	Sheep.	Horses.
New South Wales, 1871 ..	2,014,888	..	16,278,697	.. 304,100
Victoria, 1872	812,289	..	10,575,219	.. 185,796
South Australia, 1871 ..	143,463	..	4,412,055	.. 50,000
Queensland, 1871	1,168,235	..	7,403,334	.. 91,910
Western Australia, 1871	49,593	..	670,999	.. —
Tasmania, 1871	101,540	..	1,305,489	.. —
New Zealand, 1871 ..	436,592	..	9,700,629	.. 81,028
	4,726,600		50,346,422	712,834
African & other Settlements :				
Cape of Good Hope ..	692,514	..	9,836,065	.. —
Natal, 1871	485,544	..	309,725	.. —
Falkland Isles, 1873 ..	30,300	..	170,000	.. —
Mauritius, 1871	20,930	..	22,944	.. —
Ceylon, 1871	996,729	..	67,664	.. —
	2,226,017		10,406,398	—
North American Colonies :				
Ontario and Quebec, 1861	1,832,300	..	1,853,054	.. 626,196
New Brunswick ..	161,462	..	214,092	.. —
Nova Scotia ..	262,297	..	332,653	.. 41,927
Prince Edward Island, 1871	62,984	..	147,364	.. —
Newfoundland, 1869 ..	14,726	..	23,044	.. —
	2,333,769		2,570,207	668,123
Grand Total—Colonies ..	9,286,386		63,323,027	1,380,957
United Kingdom, 1872 ..	9,718,505	..	32,246,642	.. 2,665,807

FISHERIES.—The commercial value of the fisheries of our Colonies should not be overlooked in this inquiry, although they are scarcely yet developed as they will be when population increases. They provide, however, an important nursery for seamen, and afford an inexhaustible field for the skill and energy of the sea-board populations.

The Canadian Dominion has fisheries of enormous extent—the richest on the Continent—both on its Atlantic and Pacific coasts. The produce of the River and Gulf of St. Lawrence Fishery is valued officially at £250,000, that of Nova Scotia at £750,000, New Brunswick, £150,000, and of Newfoundland, £1,500,000. The River and Lake fisheries which supply local demands only, I do not advert to, but preserved salmon, lobsters, turtle, a large quantity of Indian isinglass, and the produce of the whale fisheries (still carried on to a small extent on the coasts of some of our Colonies) have to be taken into account.

Nearly all our Colonies and Possessions, it will be seen, are contributing largely to the wealth and comfort of the mother-country, as well as their own advancement. All appear to be flourishing ; all highly prosperous and progressing ; all prosecuting with untiring zeal their endeavours to draw forth the latent energies of the soil.

The Canadian Dominion, with its wheat, its wool, and its timber—the Lower Provinces, with their ship-building, fisheries, and minerals, were never so prosperous as now.

The West Indian Colonies, by economy, science, and industry, are producing large sugar crops, and turning attention to the development of many minor products. Mr. William Walker, in his paper before this Institute, has well summarised the progress of this group of Colonies.*

In 1850 the collective value of the imports into the North American Colonies was but £4,682,762. In 1872 we sent them from this country alone £11,324,187 of British produce and manufactures. The extension of railways there has greatly facilitated the extension of trade and progress of settlement, and largely increased the value of real estate.

The value of all the vegetable productions in Canada in 1851 was estimated at £9,250,000, of which grain and flour constituted nearly two-thirds. At the present time this value has much more than quadrupled; for the total value of the products of the farms alone in Canada were stated in 1860 at £40,000,000, to which has to be added the timber.

In 1855 the gross value of articles of Canadian produce and manufactures exported was £5,600,000; in 1869 it was about £10,000,000; in 1871-1872 the total trade of Canada was valued at £38,800,000.

The bundle of sticks, as Mr. Haliburton termed the North American Provinces, are now firmly united, as he suggested they should be; and in the words of one of its former Governors, Lord Metcalfe, "Long may it be one of the most splendid gems of the British Crown! Long may it flourish, a land of liberty, loyalty, industry, and enterprise, increasing daily in population and wealth;—a place of refuge and comfort for a large portion of the superabundant numbers which the genius of Britain sends forth to fertilise and civilise the untenanted regions of the earth! Long may the happy connection of the United Kingdom and this Colony in the voluntary bonds of mutual affection be an unfailing source of benefit and prosperity to both; and long may Canada rejoice in aiding and upholding the grandeur, might, and integrity of the British Empire!"

We have seen what India has been doing in its material progress, let me recapitulate briefly its commerce.

In food supplies India, in the year ending March, 1872, shipped (chiefly to the mother-country) nearly 57,000,000 lbs. of coffee,

* Vide vol. iv. p. 170.

17,500,000 lbs. of tea, 437,000 cwt. of sugar, 32,200,000 lbs. of spices, 17,000,000 cwt. of rice, 637,000 cwt. of wheat, and 320,000 cwt. of other sorts of grain. Then, of raw materials for manufactures and general industry, 809,250,000 lbs. of cotton, 53,700 cwt. of hemp, 6,134,000 cwt. of jute and jute bagging, 129,000 cwt. of cocoanut coir for rope and matting, 21,500,000 lbs. of wool; about 2,000,000 lbs. of raw silk, 20,000,000 hides and skins, upwards of 5,000,000 cwt. of oil-seeds, and 2,750,000 gallons of oil; 432,000 cwt. of saltpetre, 42,459 tons of teak wood; of dye-stuffs and tanning substances—75,805 cwts. of shellac and lac-dye, &c.; 115,414 cwts. of indigo; 42,000 cwts. of other dye-stuffs; and 158,582 cwts. of cutch, 471,500 cwts. of myrobalans, besides 91,000 cwts. of gums, various drugs, India-rubber, tobacco, 2,600 tons of horns and hoofs, ivory, and other articles, of the aggregate value of over £61,500,000 sterling. Of this total export more than one-half comes direct to the United Kingdom. The value of our imports from India in 1872 were £33,682,156.

The Straits Settlements send us increasing quantities (but not larger than our demands) of tin, spices, sago, gambier, and gutta-percha—the latter a new product within the period of this investigation.

Time fails me to go separately over each group, but the facts which I have collected for publication will speak for themselves, and furnish material for much thoughtful reflection and discussion.

One of the most noticeable features in Colonial progress is the activity of the press; and newspaper literature has certainly made remarkable strides. Many of the daily newspapers and Colonial books will bear favourable comparison with any published in this country. There are in our Australasian Possessions 310 newspapers, every capital having several dailies, admirably conducted. British India and our Eastern Colonies have 115, besides many native papers; our South African possessions more than 50; the British West Indies, 33; Malta and Gibraltar, 9; whilst British North America has over 450, thus distributed:—

NEWSPAPERS AND PERIODICALS PUBLISHED IN BRITISH NORTH AMERICA.							
				Daily.	At other periods.		Total.
Ontario .. ..	..	..	24	..	231	..	255
Quebec .. ..	..	..	12	..	84	..	96
Nova Scotia ..	..	..	3	..	34	..	37
New Brunswick ..	..	..	3	..	31	..	34
Newfoundland ..	..	..	1	..	14	..	15
Prince Edward Island ..	..	..	—	..	10	..	10
British Columbia ..	..	..	2	..	2	..	4
				45	406		451

The "Canada Directory" for 1857 gave a list of the newspapers

then published in the old Province of Canada ; they numbered only 243, so that there has been an increase of 72 since that period.

Now the number of newspapers and periodicals published in Ontario, being the western half of the old Province of Canada, is in excess of the number of newspapers and periodicals that were published thirteen years ago in the whole of the Province or Colony. The number of newspapers now printed in the city of Toronto alone is in excess of the number sold in the United Kingdom in 1821. Ingenious arithmeticians might take another, and by no means unfamiliar, mode of presenting the result of their calculations to the reader. The curious will possibly smile as they learn that were the paper that is annually used for newspaper printing at Toronto joined together, it would suffice to make a letter-press pathway round our planet of at least two feet in width ; and were idle curiosity supplemented with useless labour, it might be amusing to reckon what time it would require, at the rate of their present issue, to paper the earth's surface with Toronto daily and weekly *Globes*.*

In 1855, at the time of the repeal of the Stamp Act, the population of London exceeded $2\frac{1}{2}$ millions, and there were then printed in the metropolis eleven morning and five evening papers. In Montreal, the commercial capital of Canada, with an estimated population of 150,000, there are now published daily eight newspapers ; while Ottawa, the political capital of the country, with an estimated population of 30,000, boasts of six daily newspapers.

I trust in these discursive remarks I have enabled you to take a true and favourable view of the commercial value of some of our noble Possessions, to investigate their hidden and inexhaustible resources, and to become sensible of their value—socially, politically, and commercially. The Colonies are daily benefiting by the improved condition of the emigration, the large supplies of British capital, the consequent briskness of trade, and the general advance in all kinds of Colonial property.

The languid state of some of the Colonies would be invigorated by a fresh infusion of the parent blood ; and, strengthened by her wealth, railroads, canals, telegraphs and other evidences of prosperity, would be even more extended, and the people of Great Britain learn what a precious inheritance they have slighted and almost thrown away.

The apparent apathy of the mother-country to her Colonies has arisen, I think, in a great measure, from her want of knowledge of their collective value. The generous impulses of the British people

* Lovell's "Dominion Directory."

are at variance with such indifference. And let it once be known how sadly they have been mistaken—what a noble estate they have yet in possession—what strength, if properly managed, it would add to the parent arm, and what vitality to the whole system; let these things be made known, and the national heart will throb with affection, and yearn for its distant children.

If the tap of the morning drum which awakens the slumbering legions of Britain be carried continuously round the whole circle of our planet—if the power of this invincible island be felt in every clime, and her banner floats on the battlements of Quebec, of Malta, and Gibraltar—from the Caribbean Archipelago, the steeps of St. Helena, on the plains of Hindostan, and the settlements of Australia—surely such possessions are of some value, and must be loved and cherished by the kingdom which owns them.

That the nation can be ungenerous to her offspring is contrary to nature—that she should wish to part with them is contrary to her interest; but that she should desire to retain and cherish them, and to gather them under her beneficent wings, is proven by a thousand evidences. The heart of the British people is with them, and long may they be bound in one common link of identity and of sympathy, each supporting and relying on the other.

Sam Slick has graphically and truthfully described the colonists' dependence on and love for England and everything of British origin. The links of connection between the mother-country and its children are too strongly bound to be easily separated. It is British energy, British perseverance, British knowledge, and British capital which have peopled our Austral Colonies, and covered them with flocks and herds, with grain fields and vineyards, with cotton fields and sugar plantations, according as soil or climate suited, in Australia and New Zealand, in the Cape Colony and Natal. It is British sinew which has developed the goldfields of Australia and New Zealand, Nova Scotia and British Columbia; the coal mines of New South Wales and Nova Scotia; and poured the wealth derived from these into the purses of our home manufacturers by the enormous annual supplies taken in exchange, and which have kept our looms and our workshops actively occupied. These young striplings—with a sparse population compared to old Europe, India, or America—are yet comparatively our best customers, for they, *pro rata*, consume the largest portion of British goods. No one who watches their progress can honestly underrate their value to the mother-country. As suppliers of the bulk of much of the raw material that we require, did they take nothing from us in return, their importance could not be overrated; for

a dearth of wool, as there was not many years ago of cotton, would tell heavily upon our factories, and send up prices enormously with the great European competition in our markets, if we had no such supplies from our southern settlements. Every tree felled, every acre cultivated, every sheep reared in our Colonies, furnishes additional employment for the looms, shipping, and commerce of England.

In a paper on "British Colonies the Jewels of the Crown," in the *London Review*, in the close of 1861, I opened the subject as follows:—"As the Roman matron said of her children, so may the Sovereign of Great Britain speak of the Colonial Dependencies of her Crown—'These are my jewels!' British India is the Koh-i-noor, Ceylon and Mauritius pearls of great price; Canada a ruby; Australia and British Columbia golden pendants; the Cape Colony an emerald (now a diamond would be the more appropriate symbol), and all the other Dependencies of the Empire brilliants and gems conferring additional lustre on her diadem. Many a nation of Europe envies us the possession of these numerous Colonies, spreading over tropical and temperate zones—reaching in the Western Hemisphere from Vancouver in the North, to the Falklands in the South, and in the Eastern from Hong-Kong to New Zealand." These are the territories, these the communities, these the ever-expanding interests, which some politicians would disown and reject as useless toys or pernicious clogs.

A writer in the *Edinburgh Review* well observed: "Let us not fold our hands under the idle persuasion that we have Colonies enough; that it is mere labour in vain to scatter the seed of future nations over the earth; that it is but trouble and expense to govern them. If there is any one thing on which the maintenance of that perilous greatness to which we have attained depends more than all the rest, it is Colonisation—the opening of new markets, the creation of new customers." The facts I have brought before you undoubtedly prove that our Indian and Colonial Possessions constitute large prosperous existing and expanding markets for British manufactures, and are the main sources of supply of raw materials for our industry and capital. Colonies the growth of but yesterday have sprung into giant stature, and bid fair to outstrip many of the European kingdoms in their political status, their rank as commercial countries, and in the rapid development of their productive resources.

Although from the defective and imperfect official returns of past years I have not been quite able to trace down Colonial progress fully for an entire quarter of a century, yet the tabular data

which I append bring out the following comparative results :—That we have upwards of 23,000,000 more population under our rule, that the aggregate revenue of the Colonies has more than doubled, and their shipping trade has trebled in tonnage; their exports have quadrupled, and their imports—chiefly obtained from Great Britain—increased in the same ratio. All this material progress, beneficial alike to the Colonies and the mother-country, has been achieved with scarcely any cost to the Imperial State.

		1850.		1872.
Population	.. ..	178,338,667	..	201,960,854
Revenue	.. ..	£34,875,307	..	74,664,353
Shipping	.. .. tons	10,521,526		32,861,640
Exports	.. .. value	£36,855,861	..	£156,069,289
Imports	.. .. „	£34,348,941	..	£130,599,698

APPENDIX.

VALUE OF THE EXPORTS OF BRITISH PRODUCE AND MANUFACTURES TO INDIA AND THE COLONIES IN 1847.

Eastern Possessions :

British India	.. ..	£4,798,796
Straits Settlements	.. ..	460,036
Ceylon	.. ..	211,273
Mauritius	.. ..	233,563
Hong Kong	.. ..	768,880

Australasian Colonies :

New South Wales	.. ..	1,016,430
South Australia	.. ..	161,398
Western Australia	.. ..	10,624
Tasmania	.. ..	396,633
New Zealand	.. ..	59,085

African Colonies :

Cape of Good Hope and Natal	.. ..	688,208
St. Helena	.. ..
Gold Coast	.. ..	85,254
Sierra Leone	.. ..	95,519
Gambia	.. ..	42,819

North American Colonies:

Canada	.. ..	1,783,266
New Brunswick	.. ..	515,609
Nova Scotia	.. ..	457,225
Prince Edward Island	.. ..	64,240
Newfoundland	.. ..	343,546
Hudson's Bay Co.'s Settlements	.. ..	69,128
West India Islands and Guiana	.. ..	2,102,577
British Honduras	.. ..	170,947
Gibraltar	.. ..	466,845
Malta	.. ..	195,836
Ionian Islands	.. ..	143,426
Other Possessions	.. ..	45,205

Total £15,386,368

Comparative position of our Colonies and Possessions in 1850 and 1872 :—

Possessions.	Population.	1850.		Shipping.		Imports.
		Revenue.	Entered Exports, and Cleared.	Entered Exports, and Cleared.	Imports.	
		£	Tons.	£	£	£
Eastern Possessions:						
British India ..	171,859,055	27,522,344	1,403,633	18,283,543	13,696,696	
Ceylon ..	1,575,553	411,806	490,662	1,246,956	1,488,678	
Mauritius ..	180,863	311,854	273,344	993,200	1,061,201	
Labuan ..	1,150	5,817	—	—	—	
Hong-Kong ..	33,143	21,331	345,202	—	—	
Totals ..	173,649,764	28,273,152	2,512,841	20,523,699	16,246,575	
Australasian Colonies:						
New South Wales	265,508	633,711	498,064	2,399,580	2,078,338	
Victoria ..	76,162	392,455	195,117	1,041,796	744,925	
South Australia ..	63,039	243,174	174,455	570,817	845,572	
Western Australia	5,886	20,000	13,988	22,135	52,351	
Tasmania ..	80,000	181,079	208,865	613,850	658,540	
New Zealand ..	26,707	161,287	132,590	84,150	349,540	
Totals ..	514,297	1,631,706	1,223,079	4,732,328	4,729,266	
Falkland Isles ..	433	6,524	13,672	1,560	10,520	
African Colonies:						
Natal ..	120,627	25,700	31,521	17,106	111,016	
Cape of Good Hope	285,279	220,883	358,193	636,833	1,277,046	
St. Helena ..	6,263	16,306	182,966	21,098	81,624	
Gold Coast ..	151,346	5,147	23,490	768,156	88,656	
Sierra Leone ..	44,472	27,034	51,913	115,142	97,892	
Gambia ..	4,851	13,959	38,797	142,366	86,036	
Totals ..	612,838	309,029	686,880	1,700,701	1,742,270	
North American Colonies, &c. :						
Ontario and Quebec	1,842,265	704,234	1,066,079	2,659,684	3,489,466	
New Brunswick ..	193,800	111,134	901,605	658,018	815,531	
Nova Scotia ..	276,117	113,962	1,010,842	671,286	1,056,213	
Prince Edward Island	62,449	20,856	27,932	59,695	123,117	
Newfoundland ..	96,506	83,925	268,460	975,770	867,316	
Totals ..	2,471,137	1,034,100	3,274,918	5,024,453	6,351,643	
Bermuda ..	11,092	16,120	62,344	19,960	130,541	
Honduras ..	20,000	13,480	48,840	391,223	202,112	
British Guiana	127,695	153,560	245,425	978,296	964,986	
Totals ..	158,787	183,160	356,609	1,389,479	1,297,639	
West Indian Colonies:						
Bahamas ..	23,410	27,784	83,533	54,239	92,756	
Jamaica ..	377,433	236,964	216,822	1,217,133	1,218,073	
Virgin Islands ..	6,689	1,444	8,266	4,911	5,504	
St. Christopher ..	23,177	13,266	39,290	81,954	92,419	
Nevis ..	9,571	3,601	—	17,198	16,474	
Antigua ..	36,178	25,185	—	131,882	163,622	
Montserrat ..	7,355	3,196	8,616	8,578	9,332	
Dominica ..	22,220	8,569	24,647	52,265	57,656	
St. Lucia ..	24,516	14,454	22,388	49,128	60,538	
St. Vincent ..	30,128	17,241	—	172,428	167,310	
Barbados ..	122,198	59,363	213,947	831,534	734,359	
Grenada ..	28,927	17,366	43,442	105,510	133,647	
Tobago ..	13,028	7,819	17,468	45,664	52,555	
Trinidad ..	68,600	107,310	126,054	319,394	476,910	
Totals ..	793,430	543,562	804,473	3,101,818	3,281,155	

Possessions.	Population.	Revenue. £	Shipping entered and cleared. Tons.	Exports. £	Imports. £
European:					
Gibraltar	12,182	28,752	791,346	—	—
Malta	125,799	127,729	857,708	281,823	689,873
Heligoland	—	—	—	—	—
Totals	137,981	156,481	1,649,054	281,823	689,873
Grand Totals ..	178,338,667	34,875,307	10,521,526	36,855,861	34,348,941

1872.

Eastern Possessions :

British India ...	190,000,000	54,413,686	3,541,617	64,661,940	42,657,560
Straits Settlements	307,951	292,634	1,986,655	9,416,642	10,161,563
Ceylon	2,405,287	1,121,679	1,638,397	3,635,000	4,797,952
Mauritius	316,042	616,953	1,935	3,120,529	2,044,246
Seychelles, &c. ...	91,055	—	—	—	—
Labuan	4,898	7,155	18,314	118,962	134,023
Hong Kong	125,198	175,962	3,235,701	—	—
Totals	193,250,431	56,628,069	10,822,619	80,953,073	59,795,344

Australian Colonies :

New South Wales..	525,000	3,249,000	1,590,000	11,245,032	9,609,508
Victoria... ..	765,240	3,768,911	1,355,025	14,557,820	12,341,995
South Australia ...	188,995	1,057,192	373,624	3,582,397	2,158,023
Western Australia..	25,724	105,300	126,948	199,281	198,011
Tasmania	101,785	269,788	216,160	740,638	778,087
New Zealand... ..	312,363	1,494,245	540,261	5,282,084	4,078,193
Queensland	125,146	823,169	282,675	2,434,486	1,539,968
Totals	2,044,253	10,767,605	4,484,693	38,041,738	30,703,785

Falkland Isles ...	812	3,176	59,979	24,692	23,715
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African Colonies :

Natal	289,267	125,628	53,448	562,109	472,444
Cape of Good Hope	566,158	836,174	348,527	3,589,996	3,107,838
St. Helena	6,241	13,927	178,599	22,617	85,291
Gold Coast	400,970	30,851	251,047	295,208	250,672
Sierra Leone... ..	38,936	80,486	221,565	327,700	305,850
Gambia	14,190	18,967	99,850	153,101	102,066
Lagos	62,021	45,612	—	377,796	299,670
Elmina & Dutch Guinea	—	—	—	—	—

Totals	1,377,783	1,151,645	1,153,036	5,328,527	4,623,831
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North Amer. Colonies :

Ontario and Quebec	2,812,426	4,028,242	1,883,083	11,242,977	14,402,784
New Brunswick ...	285,777		1,520,609	1,149,569	1,727,557
Nova Scotia	387,804		1,712,341	1,357,693	2,224,696
Manitoba	11,945		—	—	467,361
N. W. Territory ...	28,700	—	—	—	—
Pr. Edward's Island	97,246	79,113	547,406	270,128	1,258,172
Newfoundland ...	150,000	164,308	312,897	1,310,892	—
British Columbia & Vancouver... ..	55,000	106,000	261,560	370,000	321,000
Totals	3,828,808	4,377,663	6,237,896	15,702,259	20,401,570

Possessions.	Population.	Revenue. £	Shipping entd. and cleared. Tons.	Exports. £	Imports. £
Bermuda	12,726	34,970	145,977	48,406	231,620
Honduras	25,635	42,881	50,622	207,672	180,663
British Guiana ...	193,491	379,647	441,428	2,748,720	1,897,184
Totals	231,852	457,498	638,027	3,004,798	2,309,467
West Indian Colonies :					
Bahamas	39,162	37,874	203,996	152,410	239,190
Turk's Island ...	4,723	9,518	76,307	21,305	25,285
Jamaica	506,154	434,565	473,980	1,248,685	1,331,185
Virgin Islands ...	6,651	1,507	8,033	6,267	4,184
St. Christopher ...	28,169	31,400	73,161	283,286	211,370
Nevis	11,735	7,713	19,959	76,340	52,006
Antigua	37,125	43,746	58,804	247,630	175,741
Montserrat	8,693	4,175	12,214	37,069	27,017
Dominica	27,178	15,440	25,239	54,957	61,971
St. Lucia	32,996	18,308	33,884	171,461	121,384
St. Vincent	35,688	30,150	42,190	255,977	157,337
Barbados	161,957	119,492	297,407	298,546	1,191,888
Grenada	35,688	22,880	144,902	153,921	132,467
Tobago	17,054	14,271	15,416	95,698	66,378
Trinidad	109,638	272,094	402,140	1,497,337	1,218,024
Totals	1,062,611	1,063,133	1,887,632	5,600,889	5,015,472
European :					
Gibraltar	18,063	38,156	3,617,297	—	—
Malta	144,322	170,942	3,960,461	7,413,313	7,726,514
Heligoland	1,879	6,466	—	—	—
Totals	164,264	215,564	7,577,758	7,413,313	7,726,514
Grand Totals	201,960,854	74,664,353	32,861,640	156,069,289	130,599,698

DETAILS AND VALUE OF THE IMPORTS FROM BRITISH POSSESSIONS IN 1872.

	Quantity.	Value.
Alkali .. ..	.. .. cwts. 55,758	.. £108,335
Asphalte .. ..	.. .. " 5,111	.. 13,801
Bacon and hams .. ..	.. .. " 35,375	.. 79,254
Bark, for tanning .. ..	.. .. value —	.. 145,912
Beef, salted .. ..	.. .. cwts. 13,268	.. 21,631
Bones .. ..	.. .. tons 855	.. 10,645
Books .. ..	.. .. cwts. 309	.. 1,493
Butter .. ..	.. .. " 66,985	.. 278,071
Caoutchouc .. ..	.. .. " 39,584	.. 369,879
Cheese .. ..	.. .. " 110,420	.. 318,854
Chemical manufactures .. ..	.. .. " —	.. 52,974
Cocoa .. ..	.. .. lbs. 8,294,975	.. 276,644
Coffee .. ..	.. .. " 132,970,246	.. 4,109,943
Copper .. ..	.. .. value —	.. 35,103
Cordage, .. ..	.. .. " —	.. 286,845
Corn, grain, and meal .. ..	.. .. cwts. 6,791,128	.. 3,270,317
Cotton .. ..	.. .. " 3,978,247	.. 13,070,203
" yarn .. ..	.. .. lbs. 95,089	.. 2,493
" manufactures .. ..	.. .. pieces 81,105	.. 44,596
Carried forward		£22,496,993

		Quantity.	Value.
	Brought forward ..	£22,496,993	
Cutch.. .. .	value	5,587	123,632
Drugs	"	—	97,107
Dye stuffs	cwts.	53,878	55,248
„ woods	tons	50,504	249,679
Extracts	value	—	4,400
Farinaceous substances	"	—	116,334
Feathers	lbs.	40,494	161,286
Fish, salted or cured	cwts.	143,992	155,097
Flax	"	10,935	15,814
Fruit	value	—	126,888
Galls	cwts.	2,126	3,330
Gambier	tons	20,579	439,344
Gum	cwts.	163,761	653,820
Gutta-percha	"	26,379	256,789
Hair or wool.. .. .	value	—	46,110
Hats	lbs.	1,136	2,275
Hemp	cwts.	109,635	141,190
Hides	value	—	2,588,579
Horns.. .. .	tons	3,553	113,008
Indigo	cwts.	62,368	1,912,629
Iron and steel	tons	6,819	71,356
Isinglass	cwts.	1,172	15,612
Jute	"	3,972,010	3,885,803
Lard	"	5,858	11,710
Lead ore	tons	634	6,534
Madder	cwts.	444	803
Manure	tons	16,061	97,486
Meat, preserved	cwts.	318,616	730,871
Metal	tons	57	4,265
Molasses	cwts.	247,632	144,377
Myrobalans	"	471,460	273,633
Natural history specimens.. .. .	value	—	10,841
Nuts	tons	21,767	256,233
Oil (whale), &c.	tons	10,134	399,480
„ cocoa nut	cwts.	22,026	36,083
„ palm	cwts.	139,057	252,932
„ seed	tons	599	19,475
„ chemical	lbs.	121,883	28,076
„ unenumerated	value	—	68,819
Oil seed-cakes	tons	1,619	15,786
Opium	lbs.	8,051	9,038
Ore, unenumerated	tons	1,700	28,121
Plumbago	"	3,376	55,376
Pork, salted	cwts.	2,552	5,112
Potatoes	"	13,342	9,121
Rice	value	—	3,473,380
Rum	proof galls.	6,208,250	645,053
Safflower	cwts.	7,830	59,244
Sago.. .. .	"	288,862	235,840
Saltpetre	"	256,221	326,178
Sauces, &c.	value	113,636	4,511
Seeds	"	—	1,410,614
Shrub.. .. .	galls.	1,506	1,376
Silk	value	—	523,810
„ manufactures	"	—	68,980
Skins, furs, and pelts	No.	12,108,899	1,428,381
Spices.. .. .	lbs.	—	1,032,405
Succades	cwts.	11,644	26,437

Carried forward £45,432,704

		Quantity.	Value.
	Brought forward ..		£45,432,704
Sugar.. .. .	.. .. .	.. cwts. 5,139,509	.. 6,791,101
Tallow .. .. .	.. .. .	.. " 505,023	.. 1,041,992
Tea .. .. .	.. .. .	.. lbs. 16,507,524	.. 1,404,665
Teeth, Elephant's, &c.	.. .. .	.. cwts. 3,925	.. 140,969
Tin .. .. .	.. .. .	.. tons 6,907	.. 937,595
Tobacco, raw .. .. .	.. .. .	.. lbs. 1,456,423	.. 54,910
" manufactured .. .. .	.. .. .	.. " 88,756	.. 16,073
Vegetables .. .. .	.. .. .	.. value —	.. 4,642
Wax .. .. .	.. .. .	.. cwts. 3,256	.. 24,235
Wine .. .. .	.. .. .	.. galls. 97,666	.. 48,956
Wood and timber .. .. .	.. .. .	.. value —	.. 4,334,074
Wool .. .. .	.. .. .	.. lbs. 227,635,807	.. 14,042,364
Goods unenumerated .. .. .	.. .. .	.. value —	.. 241,440
Total			£74,515,720.

COMPARISON OF IMPORTS.

	1851.	1872.
From British Possessions	£28,476,527	£79,372,853
" Foreign Countries	82,008,470	275,320,771
	£110,484,997	£354,693,624

EXPORTS OF BRITISH PRODUCE AND MANUFACTURES.

	1851.	1872.
To British Possessions	£20,398,834	£65,609,218
" Foreign Countries	54,049,888	354,693,624
	£74,448,722	£314,588,834

EXPORTS OF BRITISH PRODUCE AND MANUFACTURES TO THE COLONIES AND

INDIA IN 1872.

	Quantity.	Value.
Alkali.. ..	tons 190,129	£118,692
Animals: Cattle	No. 65	7,462
Sheep	" 985	12,398
Apparel, Slops	value	1,907,985
Arms, Iron Shot	cwts. 2,400	2,659
Gunpowder	lbs. 7,344,172	189,225
Percussion Caps	No. 183,074,500	24,611
Ordnance Stores & Ammunition	value	70,330
Cannon and Mortars	cwts. 5,489	15,679
Muskets	No. 101,845	63,755
Rifles	" 21,180	72,439
Fowling Pieces	" 12,394	25,794
Revolvers	" 393	681
Bags and Sacks, empty	dozens 633,798	426,344
Beer and Ale	barrels 342,775	1,224,226
Biscuit and Bread	cwts. 12,755	37,458
Bleaching Materials	" 18,155	12,645
Books, Printed	" 33,893	349,233
Brass Manufactures	" 11,857	72,552
Butter	" 8,733	49,370
Candles of all sorts	lbs. 3,665,761	125,326
Carriages, Railway	No. 310	18,230
Caoutchouc Manufactures	value	79,126
Cement	cwts. 617,796	77,542
	Carried forward ..	£4,983,762

	Quantity.	Value.
	Brought forward ..	£4,983,762
Cheese	cwts. 7,867 ..	33,304
Chemical Products	value ..	177,091
Clay, Unmanufactured	tons 1,577 ..	2,115
„ Manufactured... .. .	cwts. 873,533 ..	48,023
Clocks, Watches, &c.	value ..	33,333
Coals, Cinders, &c.	tons 1,497,722 ..	1,310,921
„ Products thereof	value ..	9,532
Copper	cwts. 5,417 ..	28,487
„ Yellow Metal for sheathing	cwts. 97,297 ..	385,951
„ manufactured	„ 37,072 ..	190,394
Cordage, &c... .. .	„ 77,322 ..	218,565
Corn and Malt	quarters 45,094 ..	159,124
Oats	cwts. 71,853 ..	32,625
Meal and Flour	„ 2,340 ..	2,094
Oatmeal	„ 1,912 ..	1,703
Cotton Yarn and Twist	lbs. 33,156,350 ..	2,389,591
„ manufactures, plain	yards 1,068,973,887 ..	14,683,129
„ „ printed	„ 260,355,444 ..	5,023,977
„ mixed materials	„ 3,570,442 ..	119,027
„ Lace and Patent Net	„ ..	40,463
„ Hosiery	doz. prs. 404,640 ..	134,315
„ of other sorts	value ..	84,352
„ Thread for sewing	lbs. 1,108,623 ..	161,391
„ other manufactures	value ..	186,520
Earthenware, China and Porcelain	„ ..	424,343
Fish, Cod and Ling	cwts. 6,522 ..	8,904
„ Herrings	barrels 10,118 ..	14,831
„ unenumerated	value ..	6,542
Furniture	„ ..	136,363
Glass	sq. ft. 300,043 ..	44,626
„ flint, plain and cut	cwts. 47,363 ..	131,922
„ common bottles	„ 353,029 ..	174,483
„ unenumerated	„ 43,202 ..	65,724
Grease	„ 10,249 ..	10,275
Haberdashery and Millinery	value ..	3,430,944
Hardware and Cutlery	cwts. 290,308 ..	1,319,184
Hats, felt	doz. 144,045 ..	247,274
„ Straw	„ 85,417 ..	66,066
„ other sorts	„ 13,169 ..	26,411
Hops	cwts. 9,653 ..	54,968
Implements and Tools	value ..	88,157
„ „ unenumerated	„ ..	46,334
Iron, old for manufacture	tons 4,677 ..	26,687
„ Pig	„ 94,479 ..	531,970
„ Puddled	„ 6,995 ..	46,634
„ Bar	„ 77,931 ..	931,284
„ Angle	„ 692 ..	9,901
„ Bolt and Rod	„ 5,959 ..	72,002
„ Rails and Tie Rods	„ 102,454 ..	1,193,538
„ Wheels and Axles	„ 929 ..	19,421
„ Unenumerated	„ 11,429 ..	131,935
„ Sheet	„ 19,870 ..	307,501
„ Tin Plates	„ 9,097 ..	330,797
„ Galvanized	„ 19,162 ..	518,723
„ Hoops	„ 19,893 ..	269,579
„ Wire	„ 16,361 ..	276,660
„ Anchors, Chains, etc.	„ 4,753 ..	99,017
„ Tubes and Pipes	„ 4,208 ..	114,335

Carried forward £41,617,124

		Quantity.	Value.
	Brought forward	..	£41,617,124
Iron Nails, Screws, etc.	.. .. . tons	9,878	270,133
„ Cast or Wrought	.. .. . „	60,778	1,083,360
„ Steel Bar of all kinds	.. .. . „	3,877	118,269
„ „ Sheets	.. .. . „	381	11,634
„ Manufactures of	.. .. . „	1,126	72,654
Jute Manufactures	.. .. . yards	2,364,750	65,571
Lead, Pig	.. .. . tons	5,729	109,643
„ Rolled, Piping and Tubing	.. .. . „	3,153	55,182
Leather	.. .. . cwts.	8,177	113,450
„ Boots and Shoes	.. .. . dz. prs.	358,761	1,040,380
„ unenumerated	.. .. . „	412,502	100,665
Linen Piece Goods	.. .. . yards	19,505,761	609,711
„ Checked, Printed, Dyed, etc.	.. .. . „	1,041,689	32,512
„ Sails, etc.	.. .. . „	1,351,727	80,498
„ Thread for sewing	.. .. . lbs.	226,222	24,214
„ unenumerated	.. .. . value		19,397
Lucifer and Vesta Matches	.. .. . „		149,336
Machinery, &c., Locomotives	.. .. . „		115,317
„ „ Other descriptions	.. .. . „		281,336
„ „ Agricultural	.. .. . „		29,815
„ „ Other descriptions	.. .. . „		596,899
Manure	.. .. . „		175,509
Medicines	.. .. . „		341,441
Musical Instruments	.. .. . „		136,612
Oil	.. .. . „		166,882
Oil and Floor Cloth	.. .. . sq. yds.	617,035	55,102
Painters' Colours and Materials	.. .. . value		355,817
Paper	.. .. . cwts.	231,851	648,867
Perfumery	.. .. . value		50,777
Pickles, Vinegar, &c.	.. .. . „		353,422
Pictures	.. .. . No.	648	6,055
Plated Wares	.. .. . value		82,818
Plumbago	.. .. . cwts.	1,292	3,192
Prints, &c.	.. .. . value		14,793
Provisions	.. .. . „		267,568
Rags	.. .. . tons.	1,242	18,171
Saddlery and Harness	.. .. . value		238,853
Salt	.. .. . tons	341,222	251,242
Saltpetre	.. .. . cwts.	7,241	12,107
Seeds	.. .. . „	11,889	41,080
Silk Manufactures	.. .. . value		466,117
Silver	.. .. . oz.	24,050	12,420
Skins and Furs	.. .. . value		25,313
Soap	.. .. . cwts.	121,667	158,385
Spirits	.. .. . gallons	742,092	92,763
Stationery, other than paper	.. .. . value		264,352
Stones and Slate	.. .. . „		51,813
Sugar	.. .. . cwts.	220,721	362,376
Telegraphic Wire, &c.	.. .. . value		97,266
Tin, unwrought	.. .. . cwts.	3,938	29,835
Tobacco and Snuff	.. .. . lbs.	63,883	17,256
Umbrellas and Parasols	.. .. . value		197,772
Wood and Timber	.. .. . loads	9,753	40,499
„ unenumerated	.. .. . value		130,797
Woollen Manufactures	.. .. . „		3,917,578
Zinc	.. .. . cwts.	81,936	74,744
All other Articles	.. .. . value		1,464,039

Total value .. £57,220,733

DISCUSSION.

The CHAIRMAN said that, after listening to a Paper going into such voluminous details, it was almost too much to expect a very full discussion, since unfortunately the rules of the Society had not been complied with, which provided that the Paper should be printed a sufficient time beforehand to give an opportunity to those who wished to speak upon it to make themselves acquainted with its details, owing to the difficulty of getting the voluminous statistical returns printed in time; nevertheless, he hoped that many gentlemen present would speak upon such topics as they were personally acquainted with, so that on the whole they might have an interesting discussion.

Mr. EDWARD WILSON agreed with the Chairman as to the overwhelming mass of details in the Paper, which really rendered it impossible to take it up and discuss it in anything like an efficient manner. He hoped, however, that other gentlemen would follow him who would be able to deal with certain parts of it, and he had no doubt that when it was printed in the Transactions it would be most valuable.

Mr. PRANCE said he would adopt the suggestion which had been made, and confine his remarks to the question of coal, which had been alluded to in the Paper. It so happened that in the Dominion of Canada there were collieries, particularly those at Cape Breton, which were being rapidly developed. Several of them had been amalgamated since he was there in 1871, and they were now at work most satisfactorily. A railway had been completed, crossing from Sydney to Cowbay, connecting all these mines, so that whereas hitherto the ports had been closed by ice during the winter, the Cape Breton Company would, by means of a proposed extension of their railway to Louisburg—a port immediately to the south of Cape Breton—be able to export coal all the year round. He should mention also the Pictou group of coal-mines. Up to the present time the railways of Canada had been burning wood instead of coal from motives of economy, but now the Grand Trunk and Western of Canada Railways, and no doubt others also, had adapted their locomotives to the burning of coal, and the demand was becoming very large, not only for the railways but also for other steam purposes. Every day new lines of steamers were being established to America, and therefore it was obviously of very great importance that the coal deposits of these Colonies should be developed as rapidly as possible. In Australia, the Australian Agri-

cultural Company and the Scottish Australian Company have the largest collieries, at Newcastle, in the Colony of New South Wales. There were others also, but not of such large extent, for these alone were now raising more than 300,000 tons per annum. It was probably known to all that there was a great demand for coal arising in China, and also as far even as San Francisco, as well as for India. Only the other day the Chairman of the Madras Railway Company stated that he had made a contract for 1,000 tons of coal from Australia. This was but the beginning of the demand, which must be met in some way, for steam purposes; in fact, the proof of the demand was to be found in the fact that the prices, which had been from 7s. to 8s. per ton at the pit's mouth, had now risen to 14s.

Mr. HYDE CLARKE, D.C.L., did not quite agree with the remark of Mr. Wilson, that it was impossible to take up a subject of this sort and deal with it as a whole, but that each should limit himself to some special subject. He would ask whether it was possible for anyone in the space of ten minutes to adequately deal with any of the subject-matters which had been brought forward. To his mind it was a matter of the greatest value to the Society, especially as regarded its influence on the public, that they should have papers dealing with topics of general interest, as well as those which had a practical bearing on some particular branch of industry. He had been most powerfully impressed on hearing this valuable Paper with the great value of the Colonies to the Empire at large, and he would particularly refer to one point in which the Colonies exercise a great moral influence on the home population, namely, the effect they produced on the progressive character of the population. In the science of politics there was probably no feature which could be regarded as so detrimental to a country as to find in it a stationary population. The features connected with such a state of things were in themselves influences of decline, and to prove this it was only necessary to look at the condition of a neighbouring country—France. Now they owed a great deal to the Colonies for their influence in keeping up the progressive character of the population, and thereby keeping up healthy influences at home, thus giving an enormous impetus to intellectual and moral progress. The influence was also increased by the high moral character maintained by the Colonial populations, of which such good evidence had been supplied by Mr. Simmonds. He referred particularly to the financial position of the Colonies, which, if compared with all the numerous States founded by Spain, showed a vast disparity. There had never been a single instance of repudiation on the part of a British Colony. This was worthy of great con-

sideration, because our brethren in the United States were not able to say as much. Such an exhibition of political virtue could not be without fruits in England, which was every day becoming more and more the money-market of the world, and it would aid the Colonies in obtaining those large resources which were so important to their rapid and successful development. It was well worthy the consideration of Colonial populations how they might obtain the assistance of these large pecuniary forces, in order to develop their own resources, as had already been done to a great extent in mining and banking companies, as had been shown by the statistics now brought forward. And it was very gratifying to find that mining in the Colonies had not been attended with those disastrous results to the public which had often attended American mining companies. They certainly owed a great deal to the Colonies for the maintenance of this high character. Referring to the vast amount of statistical information contained in the paper, he could not agree that even if they had all had an opportunity of studying these figures, it would be a wise expenditure of time to discuss them in detail at such a meeting, but thought they should rather endeavour on such occasions to grasp the general principles enunciated, and reserve the details and statistics for mature consideration and study at home.

Mr. WESTGARTH, referring to the financial credit of the Colonies, was very pleased to hear the last speaker confirm the remarks of Mr. Simmonds, and wished to add his testimony to the same effect. It was very pleasing to see the position held by the Colonies as shown by the terms on which they were now able to borrow. Thirteen or fourteen years ago, he remembered an Indian 5 per Cent. Loan coming out in London, when it was taken up at about 98; afterwards it rose to a great premium, and since then they had had even Indian 4 per Cents at a premium. And turning to another section of the Colonies, New Zealand, which had been a very large borrower, he remembered the loan of one million sterling, at 5 per cent., being issued ten years ago at 81, and the agents taking some credit to themselves for having floated the whole loan at that price. Now a few days ago that same stock was sold at 106, and the same Colony had since brought out a 4 per Cent. Loan for local investment, which had been selling at 90½ in the Colony, being a much higher price than the 5 per Cent Loan brought only a few years before. Other Colonies, after issuing loans at 6 per cent., were now able to borrow at 4 per cent., and in Victoria such a stock was now being sold at par.

Mr. LABILLIÈRE said that a few years ago a great deal of noise

was made by a certain school of economists, who said that the Colonial Empire was a mistake, and they brought forward some figures to support their policy. When, however, the opposite party resorted to the same armoury of statistics, they were very soon able to silence these so-called economists, and he was glad to find that this evening Mr. Simmonds had fired such a tremendous battery right into the centre of their position as would have completely blown them into space if they had not been already disposed of. He had shown how some few years ago many productions did not exist in the Colonies, and how they had been introduced and developed. Bearing that in mind, the question which had been often raised of the expense which the Colonies had been to the mother-country might be easily determined: he thought that the balance would very decidedly proclaim the value of the Colonies. If they could take the whole past expense of the Colonies to the mother-country and set it down on one side, and on the other the amount of benefit which the British revenue had derived from the Colonial trade, he thought it would be found that the expense had been completely wiped out over and over again, to say nothing of the other enormous advantages which had been derived from the Colonial Empire by the people of these kingdoms. Mr. Simmonds had completely established the value of the Colonies to the mother-country. He (Mr. Labillière) had read yesterday, with very great pleasure and interest, the admirable address delivered in Edinburgh by Sir Bartle Frere, with regard to the future development of Africa, in which the evils of what Sir Bartle called the "let-alone policy" were pointed out. Why should they let alone any productive regions of the earth? Why should they not hold Coomassie, when they got possession of it, as he hoped they soon would do? Why should they not endeavour to develop colonisation and commerce in that inland portion of Africa, which was reported to be healthy, and the same with New Guinea, Fiji, and other South Sea islands? He had no doubt—seeing what a great success colonisation had hitherto been—that if Colonies were established in these places, in a dozen or twenty years the expenses of their establishment would be far more than repaid.

Mr. Young remarked that some gentlemen had complained of the subject being too large for discussion, but the last speaker had somewhat widened it by introducing the African question. He confessed he himself felt the impossibility of thoroughly discussing such an exhaustive Paper, but he drew the general conclusion that the Colonies were of almost limitless value to the British Empire, not only in a commercial point of view, but, as had been remarked,

as forming an outlet for her surplus population in every climate and quarter of the world. That branch of the question had struck him as being of inestimable importance, because Englishmen were not limited to one climate or one spot, but they had an opportunity of choosing east, west, north or south, in fact all over the world they might find a place to settle in without leaving the British Empire.

Mr. YOUNG said he thought the greatest service he could render to the discussion, was to correct a slight misunderstanding that seemed to exist as to the expenses of Colonial military establishments to Great Britain. He begged leave to observe that there was not a single British soldier at the present moment in Canada, nor one in the Australian Colonies or New Zealand, except the few soldiers which were still kept in Western Australia in order to look after the convicts who had been sent there for the benefit of the British public. At the present moment the only expenses which Britain was put to for military establishments was that connected with the naval stations, which were maintained in order to protect the commerce of England, and that she might still maintain the police of the seas for her own benefit and that of mankind generally.

The Hon. WILLIAM MACDOUGALL, C.B., of Canada, begged to thank Mr. Simmonds for the valuable Paper he had read. He had expected, however, from the title of the subject, that some deductions would have been drawn—some policy indicated a little more satisfactory to those who, like himself, had been concerned in the framing of new constitutional arrangements for some of the Colonial Possessions of England. He did not think that to prove the existence of great natural and material wealth in the Colonies was in itself an answer to the arguments of some able men that had exercised a considerable influence on the minds of many persons with respect to the expediency of loosening the ties between Great Britain and some, if not all, of her Colonies. These men said that if the resources of new countries were developed, it was of very little consequence whether the people were British subjects or independent, or whether they formed part of a great confederacy like the United States; that trade and commerce were but little affected by political boundaries; and that the small advantage of prestige, which they ridiculed as a chimera, ought not to be taken into account. Now, to answer that objection, it was necessary to go a little deeper into the subject than Mr. Simmonds had done. His own opinion was that, in the case of England, it was not merely a question of the territorial extent and material wealth of the Colonies, but the nature and possible improvement of their political relations with the mother-country that ought to be considered.

He had asked the question before, and he would again put it thus—Let us, if we can, imagine Great Britain cut off from all political connection with her Colonies, and her sovereign authority limited to these islands, could she long maintain her ascendancy or position as a first-class nation? Suppose that a combination of rival commercial interests is formed against her? She had immense shops and manufactories, and an enormous industrial population ready to supply in abundance the commodities which other nations required; but if they combined, and say they would protect by high tariffs—as America and some other States were now doing—their own manufactures, and submit to inconvenience for the sake of developing their own industry, which, according to a respectable class of economists, would not be utterly impolitic, what would become of her merchants and artisans? Suppose the world were to league together in a war of tariffs against England, he should like to know how she could maintain her present position as a great power, or her wealth and importance as a commercial nation? (Cheers.) Her position now, with Colonies covering more than half of North America, and subjects who would soon number eight or ten millions, and with her Australian and Indian possessions, rendered such a league difficult, if not impossible. Yet, when in this country a few years ago on a public mission, he was astonished to find in various quarters (he was glad to say he did not hear so much of it now) an opinion that it would be better for England and for Canada that they should be henceforth separate and distinct. That movement reacted in the Colonies, and he freely admitted had caused a resentful feeling in his own mind, though he prided himself on his British origin, and infinitely preferred to live under British rule. He had said in his place in Parliament more than once that if the mother-country desired to shake us off; if she, like a father who found his children growing up around him, and believing that it would be better for him, if not for them, that they should go out and make their own way in the world, took every opportunity to remind them of the pleasure with which he would hear them say “Good-bye”—if that sort of language really expressed the views and feelings of the majority of the English people, he admitted it would be better for both that the tie were severed. And if the people of Canada to-day were convinced that the English nation—not a handful of political economists—really felt and believed that the Colonies were a burden instead of a benefit, they would very soon look out for a new state of political existence. But he was happy to say that after a residence in this country of some months, on the occasion of his pre-

sent visit, he could find very few—indeed, hardly any whose opinions were worthy of notice—ready to repeat the disloyal doctrines which were rather prevalent a few years since. So far as the Canadian Dominion is concerned, it was only necessary to read the public papers of its several provinces to ascertain the general feeling on this subject. The contest between the leaders of the two great parties, one or other of which must rule the country, was really to see which of them could avow most strongly, and establish most conclusively, their devotion to British principles of government, and their attachment to the mother-country. If the cost of military establishments in the Colonies was a question of such serious importance as had been hinted at, which he did not think was the case, he was able to assure them that Canada had for some time paid the expenses of her own military organisation, and for a population engaged in industrial pursuits, and scattered over a large space of country, that organisation was neither small nor inefficient. He remembered one occasion, when the frontier was threatened by a large body of Fenians, that Adjutant-General McDougall happened to be travelling from Ottawa to Montreal. After he left Ottawa, the news came that an invasion was imminent. The fact was immediately telegraphed to Adjutant-General McDougall, and while on his journey he wrote out his orders to the various commandants over the country hundreds of miles apart, and in twenty-four hours 40,000 men were under arms, and as fast as the railways could carry them to the threatened point, they were at the disposal of the authorities. That showed the efficiency of their organisation, and it showed this also, that except in the event of a great war, they could get on very well without British soldiers. Indeed, he had been bold enough to say, because he believed it to be true, that it was an advantage to Canada when the last British soldier took his departure from Quebec. It was an advantage because it tended to stimulate patriotism, encourage self-reliance, and develop a military spirit amongst the people. He did not quarrel with the policy of the Imperial Government on that subject, but he did quarrel with those members of Parliament and political writers who raised this question of military expenditure, and adduced it as a reason why the existing political relations between England and her Colonies should be severed. In the case of a great historic nation like England, he thought the expediency of maintaining her power and authority and dignity, by maintaining her flag wherever it rightfully flies, was not a question of expense. (Cheers.) Such a motive ought not to enter into the discussion, especially in the case of a nation which supplied the money for carrying on great

enterprises in every part of the world, In conclusion, he must say he regarded the existence of that Society and its operations with great satisfaction as a colonist. He was sorry it did not attract more attention from the press, and greater audiences to its discussions. But, no doubt, the fact of its existence, and the opportunity it afforded for colonists to express their views, produced a healthy influence on the Government, and he was disposed to think it had largely tended to bring about that change of opinion which he had been so glad to notice. (Cheers.)

The Hon. P. E. DE ROUBAIX, Member of the Legislative Council of the Cape of Good Hope, said that he quite agreed with Mr. Wilson that it was impossible, on the present occasion, to raise a proper discussion on the very voluminous and important questions treated upon by Mr. Simmonds in the able Paper just read. He had, therefore, not intended to have said anything, but, in consequence of observations which fell from some of the speakers, he deemed it necessary to say a few words. In regard to the troops at the Cape, he was glad to say they were not all removed. When the question of the introduction of Responsible Government was mooted at the Cape, it was generally expected from what had transpired that in the event of that form of government being adopted, that the soldiers would have been withdrawn. That form of government had now been in operation in that Colony for the last fifteen months, and he could inform the meeting that a couple of regiments were still retained there. He could also inform the meeting, in connection with the subject, that General Hay, the Commander of the Forces, died some months since, and that almost immediately his successor was appointed, who proceeded from here, and is at present serving at the Cape. These results could hardly have been anticipated. How they were brought about he was unable to explain. The honourable gentleman also mentioned the fact — as the subject of telegraphic communication had been alluded to by Mr. Simmonds—that the Parliament at the Cape had passed an Act last session authorising the Government to pay to any company a sum not exceeding £10,000 per annum, which may be willing to establish a line of ocean telegraph, so as to bring the Cape in communication with Europe; that a contract had already been entered into by the Ministry at the Cape with the Hooper Company here; and as that Company had also completed arrangements with the Governments of Mauritius and Natal, and secured subsidies amounting in all to about £20,000 per annum for ten years, it might be expected that at no distant period, *viâ* Aden, those Colonies would have the advantage of

ocean telegraphic communication, not only with the mother-country, but also with other parts of the world. The honourable gentleman concluded by remarking that the feeling in that branch of the Legislature at the Cape, to which he had the honour to belong, was so strong in favour of the measure authorising the subsidy, that even the standing rules and orders were suspended for the purpose of getting it speedily through the different stages. He hoped and trusted that the tie which had so long existed between the Colonies and this country would be maintained, and that, in fact, it would be more and more fostered.

Mr. GIBBORNE MOLINEUX (Secretary to the Canada Company) remarked that although the multifariousness and variety of figures contained in the Paper had probably rather tended to prevent discussion, no one could undervalue their importance when published together with the facts which Mr. Simmonds had brought forward. There was no doubt the public mind still required educating with regard to the importance and value of the Colonies to the mother-country, though he was convinced the Colonial Institute had done a great deal towards dispelling those feelings which the Hon. Mr. MacDougall had alluded to as having existed some few years ago: He was happy to think that the popular mind had now become more alive to the great and increasing value of the Colonies, and though the feeling expressed some time ago, in certain quarters at home, with regard to Canada, certainly produced some amount of irritation in the Dominion, which, if continued, might have imperilled the connection with the mother-country, he was much gratified to find, on reading an editorial article in the *Toronto Globe*, of 16th December last, that that had all disappeared, for in speaking of two small parties which had recently made their appearance in Canadian politics, the one going in for "Empire first," and the other treating Canada as the first, the editor said this: "It should be the object of good Canadians to build up and strengthen the Empire, and we believe that this will best be done by the development to the fullest extent of the resources and energies of every one of its constituent parts."

Mr. C. W. EDDY (Hon. Sec.) wished to say a few words with regard to some tables (entitled "Tables of British Commerce") which he published some few years ago, to which Mr. Simmonds had alluded: the object of these was to show the relative value of the Colonial and the Foreign trade of Great Britain. Before publication they were reviewed by an eminent accountant, and he did not think their accuracy had ever been challenged. The general result obtained was to show that the value of the trade, including

exports and imports from the Colonies in general per head of their population was £6 2s., whilst some of the richer Colonies stood much higher—for instance, with Australia it was as much as £17 18s. per head, and with New Zealand £21 6s.—whereas the value of our trade with a foreign country, such as France, was only £1 10s. per head of her population, and with the United States only £1 9s. per head, thus showing that if a Colony became alienated and estranged, her trade with us was likely to fall even below the average of purely foreign States. The pamphlet also contained a table, showing, by a number of crucial instances, that when a Colony changed her allegiance, her trade was transferred together with her loyalty. It also appeared that the population of France, and of most European countries, was stationary, if not declining, whilst the population of the Colonies was rapidly increasing. It appeared from Mr. Simmonds's Paper that in the quarter of a century, from 1847 to 1872, the total value of the exports of British produce arose from sixteen to sixty-five millions, and it was evident that it increased *pari passu* with the increase of population and of wealth in countries such as ours. Turning to the nature of the trade with foreign countries and with our own Colonies, it appeared that the imports from the Colonies had almost exclusively consisted of raw materials and articles of food, whilst the exports from England to them were chiefly goods of our own manufacture, and were almost entirely carried in British vessels. The exports to old countries, such as France and Belgium, on the other hand, consisted principally of raw material, such as coal, pig-iron, &c. and the imports from them of manufactured articles—articles of luxury—brandy, &c. Thus from our own Colonies we obtain the raw materials which feed our industries, from foreign countries mainly those that minister to the gratification of the senses. Again, of the exports to foreign countries in general, only 74 per cent. consisted of our own produce, whereas in the trade to our Colonies 90 per cent. was our own manufacture, leaving only 10 per cent. of re-shipments. The obvious conclusion from all these facts was, that the Colonial trade was of a quality much more valuable, and a more growing trade, than that with foreign countries.

The CHAIRMAN, in proposing a vote of thanks to Mr. Simmonds, hoped that, although some previous speakers had remarked on the great number of details and statistical returns in the Paper just read, Mr. Simmonds would not take such remarks in an invidious sense. It might in some degree be true that such a paper was less adapted for discussion than one which dealt with a single salient

point in the political or material condition of our Colonies. Nevertheless, the remarks made by such speakers were, in reality, compliments to the completeness and fulness with which Mr. Simmonds had treated his subject. (Hear, hear.) For himself he did not see how the "Colonial aids" to the British Empire could be dealt with effectually otherwise than as Mr. Simmonds had handled them. It was incumbent on him to avoid all appearance of shirking the difficulties of the discussion. He had to show that our Colonies were a help by the results produced by emigration; by the employment given to English capital and enterprise; by the railways and telegraphs; by their consumption of our manufactures; by the facilities afforded to us by the supplies which their productive powers afforded—in wool, coal, cotton, and the very many other articles which did help us along. It was necessary, also, by reference to the most authentic returns, to show that our Colonial trade was increasing more rapidly than our trade with foreign countries; that it led to increase of our shipping, multiplied our available seamen, and in various ways enriched England. Considering the wide extent of the delusion that the Colonies were an expense to Great Britain, it was right good service rendered by Mr. Simmonds, that, going *au fond des choses*, he was able to prove, by a mass of incontrovertible evidence, the folly of such delusion, by taking each point separately, and placing plainly before the public the bare facts, which proved that in all those respects our Colonies were an important and substantial aid to Great Britain, quite apart from the prestige which their possession conferred—a prestige which also had its material advantage. (Hear, hear.) The Chairman then noticed some clerical inaccuracies in the returns, owing to the pressure of the work in a limited time, and also stated that he would like to have seen the question of the military expense incurred by Great Britain for her Colonies more carefully gone into. He believed that it could be shown that all such expense—*i.e.* the cost now incurred on account of the Colonies, merely apart from purposes entirely Imperial and essential to the maintenance of England's naval supremacy, whether she had Colonies or not—could not be regarded in ordinary years as more than £200,000. Altogether he could not but feel he expressed the feeling of the meeting in saying that Mr. Simmonds's Paper was a most valuable contribution, and well calculated to correct many important public mistakes as to the altered relations between Great Britain and her Colonies—the former having, in process of time, grown to be the party most benefited by the connection. He was sure they would all now join in passing by acclamation

a vote of thanks to Mr. Simmonds for his able and useful paper. (Cheers.)

The vote of thanks having been passed unanimously,

Mr. SIMMONDS briefly replied that he was very sorry if he had so overloaded his paper with figures that the members had been unable to discuss it, but when he had to deal with upwards of fifty Colonies, trace their status back for a quarter of a century, and consider them in their various relations, particularly with regard to material progress, avoiding especially political discussions which had already been dealt with more than once here, it was very difficult to do so in such a form as would be very acceptable and interesting to a great meeting. His object, which he wished to enforce by reliable figures, was to take a broad and comprehensive view, instead of any special aspect of the question, and it must be borne in mind that he had been obliged to omit a great portion of the Paper in reading it, owing to its length, and this would account for his having apparently passed over some points which had been specially referred to in the discussion.

AN Ordinary General Meeting of the Institute was held in the Theatre of the Society of Arts, on Tuesday, 10th February, 1874, His Grace the Duke of MANCHESTER, President, in the chair.

Sir RICHARD GRAVES MACDONNELL, K.C.M.G., C.B., read the following Paper on

OUR RELATIONS WITH THE ASHANTEES.

In complying with a request that I should address you on the subject of our present relations with the Ashantees, I have been mainly anxious to enlist your aid in inducing the public to regard the grave questions now pending in reference to the West Coast of Africa, from a point of view distinct from the passions and prejudices of party politics in this country. I also felt that my own personal travels in Senegambia and the northern part of that coast, and an official connection with it of several years, had perhaps given me on some points such special acquaintance with the Negro race in their own country, as might render less presumptuous my attempt to contribute to your information.

I admit frankly, that just at present there is scarcely one agreeable circumstance connected with England's position on the Gold Coast, except the satisfaction arising from the certainty that our officers and men have been and are doing their duty, and will continue to do their duty there under the most trying and irksome circumstances. The time has, however, arrived when the nation expects and will insist on two things : First, a thorough inquiry into the origin of the present war ; and secondly, a settlement on some clear principles of the policy which shall hereafter regulate our intercourse with the West Coast of Africa on the termination of present complications.

I propose to consider both these questions. Though distinct, they must be investigated together, because we cannot study in the past the origin of present troubles, without gathering our best practical knowledge for guidance in the future. In dealing, however, with these questions, I shall probably have to repeat much which I said last December to a Cambridge audience, because neither facts nor inferences from facts can change. The reasoning and principles which were sound then, must be so still, and hence perhaps many of my arguments have since been adopted by others.

First, then, I believe the policy adopted since 1864 on the Gold Coast was precisely that which was least calculated to produce

good results either to ourselves or the natives, and the most certain to prejudice our commercial interests by fomenting native jealousies and feuds. It thereby led to frequent closing of the roads to peaceful traders, whose protection and encouragement should be the main object of our presence on the Coast at all.

Now, this constantly recurring closing of those roads by which alone traders can pass from one district to another, and finally communicate with the European merchant or his agents on the Coast, is the question of paramount importance in Africa. It is necessarily so, because there can be but one way of civilising that country, viz. by gradually opening it up to commercial enterprise, and so creating wants amongst the chiefs and their people, which can only be satisfied by their bartering the produce of their country for European goods. In effecting this they must develop the industry and settled habits essential for raising such produce. Now, to our shame it must be owned that for more than a century we actively encouraged the native chiefs to produce slaves chiefly, and exchange human flesh for our manufactures, whilst we gave them in exchange gunpowder, arms, and rum, whereby they were enabled to prosecute more wars, procure more prisoners, and so sell us more slaves. Thus we aided to establish a ceaselessly revolving vicious circle in which one crime produced another, whilst the progress of legitimate commerce, and all its beneficial civilising effects, were absolutely suspended. Such were the attractions of trade in man, which, as Sir Thomas Buxton well remarked long ago, "combines the hazards of the chase with the name and profits of merchandise."

All this, as I shall presently show, is intimately connected with the difficulties which we have experienced in dealing with the natives on the Gold Coast; and how could it be otherwise, when we remember that the export of slaves from the whole West Coast amounted for many years to 150,000, each of whom was but the survivor of several kidnapped or slaughtered natives, so that the total annual loss of life, apart from the export trade through Egypt and the East Coast, could not be put down at less than 300,000. Only think for a moment of the villages burned, the severed ties of family and kindred, the outrages, the sufferings, the corruption, and degradation of our species comprised within those monstrous figures! Think also of the comparatively peaceful and industrious character of the natives in the interior of Africa, where the slave dealer had not penetrated, as portrayed by the grandest of heroic missionaries and explorers, Livingstone. Remember, too, that we were formerly the most guilty instruments in creating by the

slave trade, much of that turbulence, and much of those obstructions to legitimate commerce, of which we now complain on the Gold Coast.

Our settlements on the Gambia and Western Coast were originally formed not for development of a civilising but of a debasing commerce, and our forts, whilst placed in some of the least eligible localities for anything but the slave trade, were constructed rather for defence against our Danish, Dutch, and Portuguese neighbours than for mere commercial purposes.

It is true these things have changed. We have, with the noblest objects and at great pecuniary loss, long severed our connection with the export slave trade, and, by our direct interference and example, have almost led to its extinction. Nevertheless, the turbulence, moral degradation, and perpetual feuds generated by that trade still remain, and no sound or statesmanlike view can be taken of the condition of the natives on the West Coast, which does not allow for the effects to this day of that debasing trade. None of its mischiefs have operated more injuriously than the deterioration which it has wrought in the general status of the family institution of domestic slavery. It has thereby degraded the whole social system of African life, and rendered the introduction of civilising influences more difficult. The immediate effect on trade is, that the constant feuds of the different tribes, their slave raids—for internal use or barter amongst themselves—and their plundering expeditions, lead to frequent stoppages of the roads, or rather paths, to legitimate traders. When a chief has a quarrel with his neighbour, the first thing he does in Africa is to prohibit all traffic between them; or, if he does not prohibit it, the state of the country prevents traders entering it. In this way the insecurity generated by these sudden stoppages operates as a confiscation of the fruits of industry, for he who has hired and cultivated a plot of ground is unable to barter its produce for goods, or having obtained the goods, is prevented from carrying them back to his own country.

I may here fitly explain that the prevalent idea of the native African's want of industry is a great delusion. I have seen many hundreds of natives along the Gambia who had made journeys of months to reach the banks of that river—journeys attended with great risk and severe toil, and the object of which was to hire a plot of land in a convenient locality for raising the ground nuts used in manufacture of oil to barter for guns, Manchester goods, or other articles, laden with which these hard-working men would return to their own distant homes, true missionaries of industry.

One such man could perhaps raise in a favourable season by his labour about 800 bushels of ground-nuts, worth perhaps 2s. a bushel, making a total on the venture of £30, payable in goods, whose price rose according to the distance from the Coast. The chief, whose land he had tilled, had of course to be paid an equivalent for rent, others had to be reimbursed for board and lodging, however rough and scanty, during the raising of the crop. Scarcely a nominal moiety, as well as I was able to ascertain, would generally remain to the labourer in a good year. Nevertheless I have seen them by hundreds trudging off to the distant regions of Bambarra, Bambouk, and countries near the sources of the Niger, laden with their hard-won and scanty earnings, quite content if they could get even a portion of that remnant safely back.

I say a portion, for here is the fact most important, next to the continuous demoralising effects of the old slave trade, in explaining the present condition of Western Africa, whether along the Gambia, the Gold Coast, or the Niger. That fact is, that the transport of goods, or of the produce of native industry, is liable to toll under various denominations in passing through the territory of every chief. In this way the native trader as well as the industrious labourer whom I have just described—the one travelling to the sea coast with produce for export, and the other returning to the interior with European goods—are alike mulcted by every petty chief through whose territory they must pass, and whose cupidity is only restrained by fear of his neighbour's hostility, in case the latter finds nothing left for him to rob. It was often matter of extreme surprise to me that any trade or industry could survive such a multiplication of exactions, and if our trade has not made greater progress, the only surprise is that any progress has been made at all; and in illustration of this I may mention that Captain Speke found articles charged in the interior two thousand times more than their price on the Coast—a sort of famine price caused by stoppage of the roads near the Coast.

You will now clearly understand the great importance to our commerce of keeping open all roads to the interior from the Coast, and of preventing undue tolls being levied on produce or goods, whether arriving from or going to the interior, thereby raising their cost each way, and thus in proportion contracting our trade by cutting off its profits—a process leading at last to its extinction in many districts.

Now let us see whether we have acted on the Gold Coast as though we understood our interests. I think you will find that

our policy has, on the contrary, been such as to have rendered the success of our establishments impossible. That policy, from first to last—certainly from the beginning of the present century, has been to back up the Fantees and other tribes intervening between the comparatively powerful and well-organised kingdom of Ashantee and the coast. We have aided in shutting the Ashantees from the sea, though the latter might have opened to us the interior of the Continent; and we have exposed their traders to the most monstrous impositions and tolls, amounting at times, according to the King of Ashantee, to some hundreds per cent. on the value of the goods in transit. In point of fact, all such impositions on a commerce of which we produce the purchasing staple are virtually fines on ourselves; and I cannot discover in the history of our administration of the Gold Coast that any adequate vigour was ever exerted to cement friendly relations with Ashantee by *insisting* on the Coast tribes under our influence keeping open the roads to the interior and securing the freest intercourse between our merchants on the coast and traders coming from the interior. We never seem, since the death of Governor Maclean in 1847, to have had authority adequate to protect trade, or even to enforce the most essential sanitary regulations close to the walls of our forts. Our name has been used to shield abuses and harass commerce, and implicate us in expensive arrangements for the defence of comparatively worthless allies, without advancing our own interests or those of Africa. It is, indeed, difficult to understand what was the object of our continued presence at all under such circumstances. We originally went there to purchase and export slaves, and it would seem as though we never found any other definite occupation there when that trade had been extinguished. I cannot, of course, within the limits of this address, give you detailed reasons for every conclusion that I advance. I do not hesitate, nevertheless, to assert that a very slight acquaintance with the Blue-books and records relating to the Coast would satisfy you, although those records are compiled by parties hostile to the Ashantees, that, whatever might have been the differences between the Ashantees and the more feeble and spiritless tribes in our Protectorate, it never was the wish or interest of the Ashantees to provoke hostilities with us. I will even go so far as to maintain that, if we had long since secured a road from Coomassie to Cape Coast, and insisted on its being kept open for all traders, who should be perfectly free at all times to transact business on their own terms direct with our merchants, and if we had held the chiefs responsible for the murders and

outrages committed on such traders in their territory, and, if needful, executed some of them as an example, we should probably have saved ourselves much vexation, many lives, and more than a million of money. We should also have done something still better, for we should ere this have so enlarged our trade with the interior, and have rendered peaceful pursuits so much more profitable to the natives than their present petty wars and plundering forays, that the face of the country would have been in a great measure changed, and the value of a man merely as an instrument for raising produce would have been so much increased that he would seldom have been expended in barbarous native customs, or sold or pawned for less than his working value. When a man can produce in a good year more palm-oil—as at Lagos and its vicinity—than will fetch £30, whilst he can only be sold for £4, it is evidently not sound economy either to kill or starve him. Therefore, if the course of peaceful trade can only be rendered secure till this lesson has impressed itself on the intelligence of the chiefs and owners of domestic slaves, settled habits and civilising results must attend a trade whose profits would be proportioned to the results of industry.

Keeping in mind, therefore, the foregoing general principles, which common sense suggests as fittest to regulate our policy in Africa, we find that, unfortunately, instead of laying ourselves out to cultivate a good understanding with the nation most able to open to us communication with the interior, we have for the last fifty years allowed ourselves gradually to drift into the opposite policy by a one-sided support of the tribes which intervene between Ashantee and the Coast. Those tribes had been, at various times, more or less tributary to Ashantee, and but for us, the Ashantee empire would probably have extended from the Kong Mountains, in the interior, to the sea. We apparently laboured under the impression that a powerful Government in our neighbourhood would be dangerous, whereas such a Government is just what is wanted to enforce security and simplify transactions which otherwise become hopelessly confused by the conflicting jealousies and interests of some thirty petty kings and chiefs. As if, however, this was not sufficiently embarrassing, the situation was still more complicated by our having other Europeans as neighbours—Danes and Dutch in the old forts built in the days of the slave-trade. Hence the natives near those forts had, in course of time, come to identify themselves with their European owners, and considered themselves Danish, Dutch, or English negroes, as the case might be, and were all ready to quarrel about the supremacy of their respec-

tive flags. Thus along the coast-line of the so-called Protectorate, extending about 250 miles between the Rivers Assinee, on the west, and the Volta, on the east, there were twenty-four forts, of which before 1850 four were Danish, eight British, and twelve Dutch.

Again, there was another great difficulty. In raising a revenue, there was no possibility of imposing adequate import duties, because we had not command of the whole Coast, and therefore it was easy to land goods wherever duties were lightest, and from thence send them into the interior. An attempt by a Convention in 1852 to supplement our means by levying a poll-tax on the natives of the Protectorate failed, apparently for want of administrative vigour, and also because the natives had reason to be dissatisfied both with the mode of its collection and the application of that tax, which they had reason to think was not in accordance with the stipulations of the Convention of April, 1852. Hence the proceeds dwindled from more than £7,500 in 1853, to nil after 1861. Altogether little more than £30,000 was raised during those nine years.

Another difficulty arose from changes in the conflicting nationalities along the Gold Coast. Thus, in 1850, we purchased the Danish forts, and in 1867, by a Convention with the Dutch, we divided between us the Coast of the present Protectorate; the Dutch retaining all the portion west of the "Sweet" River—a small stream which runs into the sea between Cape Coast and Elmina—and we retaining all the Coast east of that stream as far as the Volta. Meantime, so thoroughly denationalised had the aboriginal negroes in the neighbourhood of those forts become, that we actually bombarded some villages at Accra from Christianburgh for contumacy and rebellion, and the Dutch thought it necessary to destroy the village of Commendah, handed over to them by us in accordance with the Dutch Treaty of 1867, so violently English were the natives of that town and so hostile to the Dutch.

Let us now review the position of affairs on the Coast. (1.) Between the Ashantee frontier and the sea we find a number of tribes formerly more or less tributary to the Ashantees and hostile to them—tribes utterly demoralised and degraded by the slave-trade, once encouraged by England.

(2.) This large strip of country lying between Ashantee and the Coast was not only divided amongst tribes animated by conflicting jealousies amongst themselves, but these feelings were further embittered by the natives along the Coast marshalling under the Danish, English, and Dutch flags.

(3.) We had from the beginning of the century sided with, and,

by the institution of the poll-tax officially constituted ourselves the protectors of, those miscellaneous tribes between Ashantee and the sea; so that whenever either the Fantees or the natives of Akin, Denkerah, Assinee, or other districts molested Ashantee traders, which they constantly did, or gave cause of quarrel otherwise to the Ashantees; and whenever the latter sent an expedition to punish such aggression, they found themselves at once intruding into a British Protectorate. In this way we made ourselves liable to be dragged into hostilities by a set of worthless allies, against our own interest and contrary to the wishes and interests of the Ashantees. This is evident, for it was unlikely that the Ashantees should themselves seek a quarrel with us, who gave them a market. It was we who involved them in hostilities with us, because we insisted practically on treating as enemies all who invaded the Protectorate, which it was impossible for the Ashantees to avoid doing occasionally, unless they were prepared to suffer from the "protected natives" indignities which impunity would of course multiply.

Matters, however, might have dragged on for many more years in a chronic, unsatisfactory state, were it not for the crisis brought on by our Convention with the Dutch, to take over all their forts and rights on the West Coast. That was a sensible move, if prudently carried out, because it was calculated to substitute one flag for several, and so facilitate the increase of revenue under one uniform customs' tariff. It had been a leading object for many years, and if we were to remain on the Coast at all with advantage to ourselves or the nation, it seems to me that it was almost an essential policy. The Convention, however, does not state the consideration for which the Dutch gave up their ports. Some have sought it in a Convention made, as suggested, to extend Dutch influence in the Straits of Malacca to the detriment of British supremacy there. Probably many who hear me, and who, like myself, have sailed through the Straits of Malacca, may think that our supremacy there, under all circumstances, must depend, not on our hindering the Dutch to occupy Sumatra, but on our general maritime superiority and on British pluck, wherever its exhibition be necessary.

Excellent, however, as was the object of establishing one rule and one tariff along the Gold Coast, we were very unfortunate in carrying that object out. Amongst the Dutch dependencies the oldest and the chief was that at Elmina. The King and inhabitants of the native town near the Fort were essentially Dutch in feeling, and for 150 years had been in close friendship and alliance with

the Ashantees. Very often the only path of the latter to the sea lay through Elmina.

The King of Ashantee, moreover, held the "note" or "book" entitling the holder to a certain rent or yearly allowance from the Dutch. There has been much dispute as to the nature of that note, which the King described as a yearly tribute. His ancestor, so long back as the date of Bowdich's Embassy in 1817, attached great and special importance to the possession of that note. In reference to the "books," as well for Cape Coast as for Elmina, he stated: "If my messengers go to Cape Coast Fort and bring me pots of gold and casks of goods, then I cannot take that, but I must have the books." Those "books," he contended, were his by right of conquest; and his descendant, the present King, in a letter, Nov. 1870, to Mr. Ussher, then administering the Cape Coast Government, states that Elmina "paid tribute from time immemorial to his ancestors." He therefore requests that Elmina should not be included in the transfer to the British, as "it was his by right."

Colonel Nagtglass (December, 1870), commanding the Dutch Fort at Elmina, when required, before the English Government would proceed with the transfer, to explain the position of the Dutch relative to Ashantee, gives an explanation which substantially does agree with the King's statement, namely that the King of Denkerah once held from the Dutch a pay-note for an annual allowance from the Dutch of about £80, and that on the conquest of Denkerah by Ashantee, that "pay-note" fell into the hands of the King of Ashantee, as did other similar "notes." Colonel Nagtglass, however, states that such payment was never by way of tribute, but only as an encouragement to trade.

I think, however, from the language above quoted of the Ashantee King, so long back as 1817, the payment had been originally more than a mere annual allowance—probably a rent. Finally, however, when the Dutch Commandant found the progress of negotiations for the transfer stopped by this claim, he seems to have had sufficient influence at Coomassie to induce the King (August, 1871) to qualify his previous description of the "pay-note," and state that he only meant to call it "board wages" or salary—not tribute by right of conquest. Nevertheless he describes it, as transferred to his ancestor and enjoyed by himself, as "heritable."

Of course it is very difficult to know what the King did really intend to convey, for in matters involving nice distinctions, one can hardly rely on documents framed by parties half ignorant of the English language, and with apparently no adequate check on their

interpretation of the King's actual words. This I may remark, that whatever the King meant, he certainly could not have intended to describe the annual payment by the Dutch Government to his ancestors and himself as "board wages"—the absurd translation given by the Dutch interpreter. Any claim by the King as a right was also ridiculed by the Dutch Government in corresponding with our Foreign Office; and yet it was surely not singular, if a barbarian chief should consider that payments regularly made for a century in accordance with a written promise did confer a right.

One thing, however, was from the first quite clear—that for a century and a half there had been a close alliance between the Ashantees and the Elminas, and a bitter animosity between the latter and the Fantees. Moreover, the path to the Coast most accessible to the Ashantees was that through Elmina. Hence in transferring Elmina to English rule, very great tact was evidently required, and it certainly would not have been wise to treat the King's claims quite as a nullity, or in the spirit pervading the correspondence between the Dutch and English Foreign Offices.

Mr. Ussher, when administering the Government of the Gold Coast, had in October, 1870, strongly advised that the negotiations for the transfer should not be kept secret till the last moment. That was straightforward policy, and considering the long alliance between Elmina and Ashantee, it would have been prudent to have conciliated the King beforehand, and assured him of the easiest and fullest access to the Coast for purposes of trade. I cannot find that any such steps were taken. On the contrary, though the official transfer of Elmina took place on the 6th of April, 1872, it was not till the 20th April that Mr. Hennessy, then administering the Government, wrote to communicate the fact to the King of Ashantee. In doing so he communicated, but somewhat tardily, the intention of the British Government to pay him double the stipend previously paid by the Dutch Government—that is £160, instead of £80 per annum—a matter on which much undue stress has been laid, for to a person of the King's resources—receiving probably a revenue of £20,000 per month, or 5,000 ounces of gold—such an addition was comparatively unimportant.

All this time you must remember that our relations with the King of Ashantee were peculiar and delicate; for, though from the time when Governor Maclean made, in 1831, with the Ashantees the only treaty of any legal force to this date, that Power had remained tolerably quiet, if we except a foray into the Assinee territory in 1853; and although when that dispute was settled

we had no direct conflict with Ashantee till 1868—when an Ashantee force entered the Protectorate again, not to attack us, but our allies—yet since 1863-64 no regular peace had been made. Strictly speaking, it was neither peace nor war for the last ten years. The King of Ashantee always professed the greatest desire for our friendship, but he was frequently involved in disputes generally provoked by tribes of the Protectorate, who relied on our backing them up. Nothing can be clearer on this point than the evidence of Mr. Salmon, our Administrator on the Gold Coast, December, 1871. He says that “No impartial judge can overlook the fact that late wars had been provoked by the hasty conduct of the frontier tribes of this Settlement.” Therefore a limited liability in such matters, however desirable, is not easily attainable, we were, during the last ten years, ever on the verge of being entangled by our allies in actual hostilities with Ashantee. Even at the time when the transfer of Elmina took place (April, 1871), there is no doubt that very many of the King’s traders had been seized, and were in custody amongst the Assinees and Fantees; and, strictly speaking, the King, according to the conditions referred to in the Treaty of 1831, had a right to look to us to compel restitution.

All these, however, were minor difficulties compared with the one great and grievous disaster inflicted, as he supposed, on his interests by our taking over Elmina from the Dutch, and thereby shutting him out, as he thought, from his only path to the Coast, and consigning his traders to the usurious extortions of the Fantee brokers. It is easy to suggest that such apprehensions were groundless, or rather that they should have been groundless, because it was our obvious interest to ensure safe conduct and commercial freedom to all customers resorting from the interior to our markets on the coast; but how was the King likely to regard it?

You must bear in mind that since the death of Governor Maclean in 1847, we seem never to have enjoyed the confidence of the Ashantees; and the practical exclusion of the latter from anything like really free and safe intercourse with the Coast was frankly admitted by the Dutch Governor of Elmina, even at a time when he was seeking to make us satisfied with our bargain. Writing in December, 1870, Colonel Nagtglass says: “That the King of Ashantee will be very much annoyed by the transfer of these possessions to the Queen of England, I readily understand, as he will lose the free intercourse not only with his Elmina friends, but with the sea-side people from Assinee to the Volta”—that is, the whole of the 250 miles of the coast of the British

Protectorate. "He always endeavoured to have a station, as the Chief of Dahomey has at Whydah, and now all his hopes have failed."

That was the opinion of the Dutch Governor, and it is not surprising, therefore, that it should have been the opinion of the King of Ashantee also; and I regard it as highly disgraceful to the prestige and general character of our Government on the Coast to find it had so imperfectly fulfilled its mission for opening up the interior, that at the moment when its Protectorate was about to be enlarged, and its influence extended, such an event should have come to be regarded as equivalent to excluding from the Coast the most powerful kingdom in the interior with which we had any commercial relation.

It is strange, too, to observe how innocently free from information as to the actual state of things our own Government in England was at that time. When Lord Kimberley in due course had received a copy of the Dutch Governor's letter, he is surprised at the latter's observation, and remarks (February, 1871) that "He does *not* see what is to prevent the Ashantees from having a continued free intercourse with Elmina, nor how the transfer can affect their present position with respect to access to the sea-side"—a movement which Lord Kimberley very properly states ought to be facilitated as far as lay in the power of our authorities. Now it was true that no Act of Parliament had excluded Ashantee traders from the Coast, but the history of a century, except partially during the interval of Governor Maclean's tenure of office—viz. from 1831 to 1847—had demonstrated that virtual exclusion from free commerce at the Coast, and extortionate treatment of Ashantee traders, was the normal state of things, except at Elmina, the very place which was then about to be absorbed into the Protectorate.

Surely we are on the Coast to promote above all things free commercial intercourse, and yet I look in vain in the records of these transactions for one adequate and statesmanlike attempt to establish safe and free intercourse between the Coast and the interior. Nothing, in fact, surprises me more than our utter helplessness in that matter. We appear to have resigned ourselves to acting as the tools of the native Coast monopolists and brokers, to the great detriment of our own interests. Long before recent events, an adequate effort should have been made to open a good road to Coomassie, along which traders from the interior might have passed with perfect ease and safety, and above all found themselves afterwards quite unfettered by any

usurious customs or brokerage in the conduct of their business and dealings with European merchants on the Coast. It would then have been a matter of perfect indifference to the King of Ashantee whether we held Elmina or not ; or rather, our holding it should have been to the King of Ashantee an additional guarantee of the good treatment and unfettered commercial freedom which his subjects might count on finding there. It was but a miserable failure of policy, and a wretched return for all our expenditure, to find that the hoisting of the English flag had become a signal for distrust.

I am not surprised, however, at the weakness of our executive on the Coast. Since the disturbances in 1863-64, and the Report, June, 1865, of the Select Committee of the House of Commons to consider the state of our establishments on the West Coast, the efforts of *all* parties were meant to diminish our obligations, and, in the words of that Report, "to encourage in the natives the exercise of those qualities which may render it possible for us more and more to transfer to them the administration of all the Governments, with a view to our ultimate withdrawal from all, except probably Sierra Leone."

That was the view taken in 1865 by the Select Committee, of which Sir Charles Adderley was chairman. In one sense the object was undoubtedly wise and good, if we had educated the natives up to it ; but practically it resolved itself into an attempt, in Earl Grey's words, to establish a Protectorate on principles of "limited liability," a course impossible, and in attempting which we only made the natives more dependent on us than ever.

The instructions to our governors were intended to be in the spirit of the Report of the Select Committee, but they were singularly perplexing. Thus, they might lend arms and ammunition, but not troops, to the protected tribes, and according to Lord Granville (17th May, 1869), "the wars in which they (*viz.* the tribes of the Protectorate) might engage themselves were to be their wars, and not the wars of this country. They were to rely on themselves for success," &c.

I confess that I do not understand how, when two parties are fighting, we could hope to help one of them with guns and powder to kill the other, and yet remain on good terms with the latter. The desire of the British Government to protect the interest of the British taxpayer cannot be too highly commended ; but it seems to have led to the most contradictory policy, and resulted in our incurring finally a vast expenditure in support of a sham Protectorate. What did the word Protectorate mean under the circumstances ? Was there, or is there, anyone able to define it ?

The Secretary of State, when instructing Governor Hennessy on the 19th February, 1871, as to the transfer of Elmina from the Dutch to the English, desires him to issue a proclamation, "declaring in explicit terms that Her Majesty will extend her favour and protection as fully to the Elminas as to the Fantees." And accordingly Mr. Hennessy did, on the 6th April, 1872, issue a proclamation to that effect. Lord Kimberley had also previously (October, 1870) desired Governor Kennedy "to inform the Elminas that after the departure of the Dutch, British protection will be extended to them, and that the Fantees in their neighbourhood will be *required* to desist from making any hostile attacks on them."

Now let us see what all this meant. There happened to be a public meeting at Elmina (19th December, 1870), and Mr. Bartels—a native gentleman employed by us to sound the feeling of the Elminas—had been stating the wish of the English Governor to afford them "protection," when the Elmina king inquired the meaning of that word. Mr. Bartels replied, it meant that "the robbery, pillaging, and kidnapping which your people have suffered at the hands of the Fantees would be put down, if necessary, with a high hand and by force." Now, if a Protectorate meant anything, one would suppose it meant a power to put down robbery and violence. Nevertheless, whatever it meant—and I am not aware that anyone has yet discovered what it did mean—it certainly could not have meant that, for Lord Kimberley lost not a moment in checking such a precipitate conclusion when he learned the alarming intelligence that the British authorities on the Coast intended to have peace and order kept within the limit of the British Protectorate. He writes at once to Governor Kennedy (Feb. 1871): "I regret that Mr. Bartels should have stated at the meeting that violence on the part of the Fantees would be put down, if necessary, with a high hand and by force. Such a promise," he said, "would be entirely inconsistent with the position which Her Majesty's Government occupy towards the protected tribes, and with the express instructions which have been given to the Administrator of the Gold Coast Settlements." In writing to the Foreign Office he also calls it "an improper promise." It is not surprising, therefore, that the King of the Elminas, as well as our local governors, should have been bewildered by these frequent and contradictory instructions. How natural was one of the King's exclamations at the meeting above-mentioned: "We have suffered so much from the exchange of territory that we are tired and exhausted. Surely a man can only be sold once!" for you must remember

that having exchanged territory with the Dutch in 1867, we were then resuming it.

On the whole, our miserable system of sham protection protected nothing—not even ourselves from the entanglements resulting in the present Ashantee war ; and, as Earl Grey recently said truly and tersely : “ The British Government, in halting between two systems, has incurred most of the evils and dangers of both without the advantages of either.”

I think I have now stated quite enough to explain the leading causes of the Ashantee war, and convince you that no adequate means had been employed for years to give the Ashantees confidence in either our goodwill or our power to protect their traders—which is the real touchstone of durable friendship in Africa. We had been letting things take their course, in accordance, as was supposed, with the policy recommended in 1865 by Sir Charles Adderley's Committee, and the course which things did take was apparently one of increased license amongst the tribes of the Protectorate, increased dependence on us, insecurity to traders and travellers, increased feuds and enmity between the protected tribes and Ashantees, and diminution of the influence for good of the British authority. In fact we drifted with the policy pursued during the last ten years, alike by Conservative and Liberal Ministries, into a groove from which we seemed to have neither ability nor energy to escape, till a terrible crisis arrived, and at last roused the nation.

No doubt there was provocation even to us, as well as to the protected tribes, on the side of the Ashantees ; for example, in 1869 an Ashantee General, named Addoo-Boffoo, captured some German missionaries, though not within the Protectorate, and retained them on various frivolous pretexts, despite of a long correspondence. They were doubtless kept back as a means of putting pressure on us in the event of the proceedings connected with the transfer of Elmina to the English working unfavourably to Ashantee interests. Now, it so happened, that a son of Addoo-Boffoo was afterwards caught by a Protectorate chief and sent to Cape Coast, whence, with a generosity as little likely to be appreciated by a barbarous race as some of the finely rounded sentences in his proclamations, Governor Hennessy caused him to be sent back to Coomassie unconditionally. He did the same thing with Atjembon, the King's uncle, who had been for a year doing his best to foment disturbances at Elmina. The Dutch Governor at last imprisoned him, and then sent him out of the colony to the westward, and finally he was arrested by us under circumstances most ignominious to a person in his station and

taken to Cape Coast, whence Governor Hennessy sent him back in state to Coomassie, in November, 1872, with all his followers, amounting to nearly 700.

None of the Ashantee chiefs had displayed such bitterness to us as Atjembon. He was the arch-conspirator against us at Elmina, and whilst he had the reputation of being one of the most cruel, he was also accounted one of the most capable of the Ashantee generals. Therefore whilst the King delayed on shallow pretexts to restore the missionaries, it was surely most unwise to send to Coomassie a chief burning at the indignity of his previous arrest, and versed in all the Elmina intrigues. His influence was certain to be exerted to our disadvantage; and accordingly, within a few months after his return to Coomassie, Atjembon led an army into the Protectorate, burning and destroying wherever he passed; whilst Mr. Hennessy was snubbing Colonel Harley, the Cape Coast Governor, for not wasting time in reporting some of the thousand unfounded rumours which had been flying about, and was proving the improbability of an Ashantee invasion, in the face of many nice speeches and promises by him, and despite his gratuitous restoration of the principal mischief-maker, Atjembon.

It is, however, needless and unpleasant to multiply instances of difficulties created by an unlucky alacrity at muddling which seems during 1872 to have possessed several of our administrators at Cape Coast, especially as they all appear to have been very zealous public servants. Nevertheless, I must mention one more incident, viz. that Mr. Salmon took on himself (23rd January, 1872) to close the roads to Ashantee, till the King—who at that time, be it remembered, professed to have no quarrel with us—had decided on making “a lasting peace” with us, and restored the white captives. Mr. Salmon further explained, that he could not otherwise be assured of the safety of the King’s traders, on account of the troubled state of the Protectorate.

This was a very questionable step; in fact, the captive German missionaries themselves wrote afterwards from Coomassie, saying, “They (*i.e.* the Ashantees) consider the closing of the roads as a declaration of war,” and such I always found it regarded in Africa. Independent, therefore of the impolicy of such a step on our part, and at a time when the King was professing peaceful intentions, the reason given by Mr. Salmon seems to have been ill-timed and injudicious, for it admitted to the King of Ashantee our impotence in our so-called Protectorate to protect peaceful traders, and if we were unable also to protect ourselves against being entangled in wars, by the disorderly conduct of our worthless allies, you will

perhaps agree with me that the sooner we retired from such a sham and costly Protectorate the better.

And here we arrive at the second and most immediately interesting part of our subject, viz. What ought to be England's policy now? For my part, when I look to the past, which I have been describing, and when I reflect that there has been in a long series of years a total absence of any statesmanlike policy to create and encourage friendly relations, based on commercial transactions, with the Ashantees, though they might have been our most powerful link with the interior, and though their capital was barely 150 miles distant from Cape Coast Castle; and when, as I have shown you, our general policy was one that made us mainly figure as supporters of tribes divided amongst themselves and only united in harassing the travellers and traders from Ashantee; and when I recollect that this present war was mainly brought about by injudicious arrangements and careless local diplomacy connected with the transfer of Elmina from the Dutch—a disturbing event impossible to recur—I feel a confidence as to the future, proportioned to the palpable and avoidable errors of commission and omission in the past.

I have no sympathy with, and indeed I fail altogether to appreciate the force of the argument of, those who, supported by our “leading journal,” suggest that the period has arrived for abandoning the Coast, and that if our arms there be successful the opportunity is all the more favourable of quitting it without loss of prestige. Even if the risk of another war were greater than it is, I for one am unwilling and unable to believe that England is justified in shaping her course, or measuring her destiny, by a standard so exclusively selfish and sordidly low as a mere money standard. Such a consideration has its weight, but it is not all in all, nor should a natural feeling of impatience at the mess resulting from our recent philanthropical and commercial ventures on the Coast be allowed more than its due influence in a general review of the circumstances.

Probably England may have to pay a million or more for this war. I ask you, nevertheless, how very small a part does that represent of the debt due from England to Africa. Remember the hundreds of thousands of lives lost in the trade for the prosecution of which English merchants built those forts which fringe the Atlantic by the Gold Coast. Remember the demoralisation and degradation therein involved. It is indisputable that the natural occupations of the natives—their agriculture, and all the social improvement which must have followed more settled habits—

were violently uprooted there as elsewhere, and savage vices almost purposely substituted for them by the English Company, which built Cape Coast Castle as a safe depository for their monstrous human cargoes. Lapse of time has not cancelled, and never can cancel, our debt to West Africa—though our efforts, even when ineffectual, to benefit it, have for more than half a century redeemed our character.

We should therefore consider it fortunate if we now find ourselves so placed that we need not damage our reputation by handing over our so-called allies, on our departure from the scene, to the vengeance of the Ashantees. Is there, I ask, in the history of the past, anything to discourage us? or why should we suppose that we cannot by durable commercial ties connect ourselves with the natives in the interior? If hitherto we have chosen to remain almost apathetic whilst the natives under our very guns were destroying trade by a stupid monopoly and usurious brokerage; or stopping the paths by turbulent outbreaks, and harassing attacks on traders; what reason does this afford for despairing of a future in which we should follow a policy just the reverse? Why can we not resume our proper position, and yet leave the tribes in the present Protectorate very much to themselves in these matters, by insisting on the thorough maintenance of the second clause of the Treaty of 1831 in its integrity? That clause is in force still, but certainly it has practically dropped into abeyance, with the consent both of Liberal and Conservative Governments. It provides that the paths shall be perfectly open and free to all persons engaged in lawful traffic, and that parties molesting them in any way whatever, or forcing them to purchase at any particular market, or influencing them by any unfair means whatever, shall be deemed guilty of infringing the Treaty, and liable to the severest punishment.

All we have to do is to constitute ourselves henceforward the sole tribunal of reference on those points, and assume all authority necessary for such a purpose, without regard to questions of jurisdiction or unfruitful quibbles. We must assert, and take with a high hand, what jurisdiction we require for the general benefit; and, as I have said before, we must if necessary hang any native chiefs who may persist in attacking traders or stopping the roads. Our commission there is to see that commerce be safe and wholly unfettered, and that it be so not merely in the words of a Treaty lying in some musty pigeon-hole, but palpably so on and over the face of the country and along the Coast. If we can do this, let us stay there; but if our rule is to be a sham again, let us abandon

the Coast, before a fresh war overtake us. I venture to say, that in ten years under an impartial and clearly defined policy such as that, the whole social life and appearance of the country would be so altered for the better as to be scarcely recognisable. I also assert that this could be done without risk of expense or war; nay, more, I believe that although in regard to many articles of export our settlements on the Gold Coast are not so favourably placed as in other districts, our legitimate commerce there, instead of being represented as now by less than half a million—less in fact than its amount thirty years ago—might be quadrupled ere ten years of secure and free trade had elapsed.

I cannot here go into the figures illustrating that assertion, but I am only asking you to believe that what has been already done, and well done, under adverse circumstances, can be done again with everything in our favour. At present we have, for the first time, no rival European Power on the Coast. We are at last free to put in force whatever revenue laws may be most expedient, and can increase our resources in a manner previously impossible. We have humbled—for I may, without apprehension, speak in the past tense—we have humbled and broken the Ashantee power for mischief, and our will is at this moment supreme on the Coast. Is that, therefore, a time to abandon it, when our power for good is so immensely extended? Compare the opportunity afforded to England now and in the time of Captain Maclean, when the condition of things on the Coast was so bad, that despite of the victory over the previously unconquered Ashantees at Doondowah, in 1826, the British Government had seriously resolved to abandon the Settlements. Fortunately, the African merchants succeeded in getting them made over to them as a trading company, and Captain Maclean was selected by them as Administrator.

All the revenue he had for every expense was an allowance of £4,000 per annum, or the tenth of that which might now be easily raised. He could only keep on pay less than 100 coloured soldiers, and nevertheless with these feeble materials he obtained an influence which we have never since enjoyed, and on the remains of which influence, to a certain degree, we have since been drawing. It was he who made the Treaty of 1831 with the Ashantees. It still exists, but instead of refusing to interfere for the protection of traders, he never allowed any stoppage of the roads or any assaults on traders to pass without severe punishment; and during the whole of his long term of office—seventeen years—he was respected by the Ashantees, because they felt he was impartial. We had no disturbances then, and no apprehension of an

Ashantee war. Trade doubled itself, and yet, as I have remarked, the circumstances were at first greatly against such success, whereas now they are suddenly to the last degree favourable, if there be no very glaring mismanagement.

It is true the Government cannot easily find another Maclean, or perhaps even anyone guaranteed to live seventeen years on the Coast, and there is no chance of any future Governor having the same uncontrolled freedom of action; but the policy pursued by Captain Maclean need not change or die out. That policy was impartial protection to, and complete emancipation of, trade, in all its movements and transactions.

The present—I might now almost say the late—war, need not at least incline us to make many sacrifices for our allies, who have figured in a truly contemptible light; but it is no longer, I trust, a question of sacrifice to be made by any party, but of benefit to all. I therefore hope that, whilst the campaign may have thoroughly convinced the Ashantees of our superiority, they may still find themselves in a position to profit by an honourable alliance with us on terms of reciprocal friendship and goodwill, such as may yet enable us, whilst cultivating closer commercial relations, to use a wholesome influence for the abolition of their abominable native “customs” and human sacrifices.

If, however, in the future a change come over the Gold Coast, and our presence there be marked by improved civilisation, and enlarged commerce, you will agree with me in saying that these results will be due, not to the politicians of either party, but to our gallant soldiers and their distinguished General; and I hope you will agree with me in condemning the thoughtless language occasionally used of late, to the effect that no glory was to be gained by our soldiers in such a contest. Is there not glory, and great glory, attending the gallant and faithful discharge of duty under circumstances specially irksome, and as full of varied dangers equally trying to a really brave man as the charge of a splendidly equipped foe, accompanied by all the pomp and circumstance of war? I trust the English nation will never be so changed as to deem inglorious any public duty well and thoroughly done.

And here I must say that, if I have dwelt on the general abnegation of all positive policy on the Gold Coast, as sanctioned by both the great political parties in this country for the last ten years, till at last our apathetic and aimless helplessness had drifted us into a serious crisis, we must also, in candour, admit that when the crisis did arrive it was met by the Government with a vigour and completeness which left nothing to be desired in cir-

cumstances of peculiar difficulty. The time for an advance of European troops into the interior, or even for their sojourn at all on the Coast, was, by climatic causes, limited to little more than a couple of months. Nevertheless, all the necessary combinations were so perfectly carried out, that British soldiers, who were only off the Coast in the latter half of December, are probably, if a late telegram be correct, at this moment marching back successful from Coomassie to re-embark at Cape Coast Castle.

Amongst their rewards—and I hope they may be many—I am sure they would prize few higher than the satisfaction, which I trust they will yet enjoy, of knowing that their toils, their wounds, and their losses, have enabled their Government to take a fresh departure in their West African policy, and accomplish immense good by simply reversing the old system of meddling just sufficiently to muddle, and touching many things, but handling none energetically, according to some plain and predetermined principle of action. Let us in future keep to, and follow up, one clear object, and let us do it with vigour and impartiality. In a word, let us insist on the leading principle of Governor Maclean's treaty in 1831 being carried out alike by Fantee and Ashantee. That principle was freedom and open paths to all traders, and security to commerce, as far as our arm could reach. Security to the trader, who is the first and best missionary of peace and plenty, is the key wherewith to unlock the interior of Africa—to make her plains gradually teem with agricultural produce, and cover them with settled villages—to make man so valuable a producer, that the slave-dealer cannot afford to buy him—and, finally, open a path by which Christian civilisation and knowledge may slowly penetrate hereafter, and so complete a more glorious triumph than even that won by our soldiers.

DISCUSSION.

MR. SWANZY said he was one of the oldest traders on the Gold Coast, with which his family had been connected for fifty-five years, and he had resided there a long time himself. He was, therefore, pretty well acquainted with the state of affairs there, and could well appreciate the value of the Paper which had just been read. It was quite true that the difficulty of access to the Coast had always been a cause of war in Africa; in fact, that was the great difficulty in the way of European traders on the Niger. But it was not the case that the Ashantees had not had free access to the

Coast. For many years they had had free access, to his knowledge, but of course under the protection of the British Government. However, that protection had not been effectual, and in some instances interruptions, and consequent hostilities, had taken place. There had always intervened between Ashantee and Elmina two powerful tribes, which formerly had been subject to the Ashantees, and these tribes had to be conquered before the way was clear to Elmina. With reference to the cause of the present war, the British Government had exercised rights of sovereignty for some time past, and by levying duties on imports had absorbed all the revenue of the country, and at the same time had taken from the native chiefs part of their jurisdiction. The consequence was, that when the Ashantee invasion took place, the people were entirely disorganised, and without any coherence whatever. He believed, therefore, that the taking over of Elmina was the excuse, rather than the cause, of the war. Anyone who knew anything about the King of Dahomey or the King of Ashantee would be aware that they occasionally made raids without assigning any cause whatever. Last year he had the pleasure of a conversation with Mr. Pope Hennessey, who told him it was a custom when the Ashantees made war for an ambassador to come down, break a stick in half, and leave one half on the table as a declaration of hostilities. He could only say that was not according to his experience, for in 1853, when he was on the Coast, they came down without any previous notice whatever. The Fantees, however, showed a firm front on that occasion, and drove them back. The Ashantee trade was very much overrated, for during the last ten years he had received more than half of the whole quantity of gold which came from the West Coast, and it did not exceed £40,000 a-year. The trade in palm-oil was really the principal trade, the exports of gold being comparatively unimportant. But even on the Gold Coast, wherever a merchant chose to plant a factory, if there were a forest of palms in the neighbourhood, he could be sure of doing a good trade, provided he were supplied with merchandise suited to the wants of the natives. It was quite true that the British Government had not been sufficiently firm, either in keeping open the roads or in many other ways, and laws had been introduced (such as the Bankruptcy Act) which were quite unsuitable to the locality, and had done very much to disturb trade. It seemed to be supposed that the same laws which would bind Europeans would be equally operative with the natives. Governor Maclean acted differently, for he knew very well that they required very stringent measures to keep them in order. More recently the prevalent idea

seemed to be that of protecting the native against the trader. The sort of milk-and-water policy adopted towards the natives was not sufficiently firm, especially as an African, after he had been imprisoned, was not looked upon as in any way disgraced, but held up his head as high as ever. Again, the principal part of an African's property often consisted of slaves; but, of course, these could not be taken any cognizance of in an English court of law, so that the Bankruptcy laws were quite inapplicable. The complicated Customs' laws, again, were rather a hindrance than an assistance to commerce. In fact, he could say with the greatest truth that so far from receiving any protection on the West Coast, the Government had been an obstruction to him. In corroboration of this statement, he might add that a friend of his, a Bristol merchant, told him that he never went where he saw the British flag flying. As to the cause of this unfortunate state of things, in the first place, the government of the Gold Coast, though it required more tact than almost any other, was generally given first to a young official to try his hand at, and in nine cases out of ten, when the Governor had been there a few years and knew a little of his duties, he came over to England, and sought another appointment. What was wanted was a man who would remain there, as Mr. Maclean did; and for that purpose the salary and rank should be increased with length of service. The policy recommended by Sir C. Adderley's Committee seemed to be to exercise rights of sovereignty, but at the same time to tell the natives that in the case of war they must not expect any assistance. He did not hesitate to say that if at the commencement of this war £20,000 or £30,000 had been expended, it might have been terminated without the loss of a single man, and certainly without the sacrifice of such a valuable life as that of Mr. Charteris. It was said that the natives of the Gold Coast were great cowards, and recent events seemed to have proved them so; but it was not the case formerly, when they fought their own battles under the protection of the merchants. For instance, at the battle of Duduwah, many years ago, they fought very well; and even at the commencement of the present war, according to a letter he had received from an officer connected with Lieutenant Glover's expedition, he said they fought well, but they wanted some one to lead them and keep them together, and for the want of this—after successfully resisting the enemy at Dunquah and Mansoo—they melted away. Lastly, he must confess to being somewhat doubtful of the authenticity of the telegram from Lisbon, seeing that the Adansi Hills were 120 miles from the Coast, and there was barely time for the message to have reached Madeira in

twelve days, as it must have done for the telegram to have been published in the London papers of February 5th.

Captain ROGERS said the meaning of the word "Protectorate" was carefully defined in the Blue-Book of 1865 by Sir Harry Ord, who said that the feeling of the tribes on the Gold Coast of Africa was, that the weaker should lean on the stronger, and in the Protectorate in particular the Fantee tribes leant on the English as the stronger, in preference to the Ashantee, the weaker power. Mr. Swanzy had alluded to the battle of Duduwah, in 1826; but it seemed to have been generally forgotten that the Royal African Corps was raised especially for that war. It was recruited in London, and consisted principally of convicts, and soldiers who had been sentenced to severe floggings for their crimes. Six hundred men of this class were sent out, and fought bravely at the battle referred to, at which the Danes also assisted.

Mr. SWANZY said he believed the Gold Coast was the first locality which was freed from the bane of the slave trade. As far as he knew there was no export of slaves from there after 1810 or 1812. The first hostile meeting between the English and the Ashantees was in 1807. The latter beat the Fantees and the other tribes along the coast; but thirty-two English took refuge in the fort of Manataboo, and defended themselves so gallantly, that they killed 2,000 Ashantees, and put them to flight.

Sir CHARLES DAUBENEY, with reference to the percentage of mortality amongst English soldiers on the Gold Coast, asked if Captain Rogers could give the sequel of the Royal African Corps history.

Captain ROGERS said he had recently seen a brother officer who had been connected with the corps, which was mainly officered by the sons of old Peninsular officers. He was informed that, as might have been expected from the character of the men, they drank a great deal, and the corps died out in a few years. It was supplemented from time to time by raising black troops, but in 1842 it was finally disbanded, and three West Indian regiments were founded on its basis.

Mr. HALE said this matter ought not to be treated as a party question, as all Administrations had been concerned in it. One great complaint seemed to be that only second-rate men went to the Coast as Governors, and that even they were anxious to leave it as soon as possible. Probably if better sanitary arrangements could be provided, it would remedy this to some extent, and also be of great advantage to the country.

Mr. LABILLIÈRE asked if any gentleman present could state whether there were any hills near the Coast which were more

healthy than the seaboard. It had been stated that Coomassie was much more healthy than the Coast.

Mr. SWANZY said the Akropong Mountains, about thirty miles from the Coast, where the Moravian missionaries had a station, were very healthy, at any rate judging from the number of their children. He had Englishmen in his employ who had lived on the Coast for fourteen, sixteen, or twenty years. It depended a great deal on constitution, and some could not stand the climate at all. The mistake was that when men were getting "seasoned," as it was called, and suffered a little from debility, they came home and tried to exchange. For his own part he did not consider any clerk of his on the Coast worth anything until he had had his "seasoning." In fact, very often the longer a man stayed there the better health he enjoyed.

Captain COLOMB remarked that though a good deal had been said about policy, a little consideration would show that in dealing with semi-civilised or barbarous people, questions of policy very speedily became matters of military detail. The whole Ashantee war had arisen from a weak-kneed, faint-hearted policy, because the English had never been in a position to enforce their policy, whatever it was. We had never had any troops there to speak of, and latterly had not been in a position to protect even our own people. He held in his hand letters from a late brother officer at Elmina, which stated that when he arrived there thousands of people had fled to Elmina for protection; but, unfortunately, all military defences were very deficient. The guns were obsolete, and the rifle ammunition was so rusty and deteriorated that it could not be used. That showed the responsibilities which were undertaken without due consideration, forts being taken over, but no provision being made for arming them, or ensuring protection to the people in the hour of need. He also doubted the authenticity of the telegram, because he did not think its language and tone was in accordance with the despatches of Sir Garnet Wolseley; but whether it was correct or not, he did not doubt that success would very soon crown our operations there. He wished to point out that in consequence of the apathy and blindness with which treaties were entered into, we had become involved in a war which would cost a great deal of money, when a little foresight and organisation would have obtained the same results with much less expense both of life and money. He held in his hand a letter from Colonel Festing, written just when he had reached Elmina, when the Ashantees were but fifteen miles off, and he said he wished he could "get a slap at them," but it was utterly impossible, because he had not any forces.

On the 15th March last, the Under-Secretary of State for the Colonies stated that hostilities had commenced, and that the Fantee territory was invaded. Then nothing at all was done until June, when Colonel Festing was sent out with a hundred men, who were left there unsupported until they had to come home debilitated by fever. Then a much larger force was sent out, with an enormous amount of stores, and a railway, which had to be countermanded as useless.

Mr. HENRY LIGGINS said it was his opinion for many years that so long as we possessed Colonies in different parts of the world, with different climates, it was of vast importance that we should retain troops sufficient to properly protect them. At one time England had four or five West Indian regiments : they were very fine troops, and he had very often seen them reviewed in the West Indies, and they were as fine men as could be seen anywhere, capable of any amount of fatigue. They were as full of pluck as any English soldiers, and were officered by the cream of English gentlemen. Unfortunately, owing to the policy which had already been referred to, we had been deprived of the services of two of those regiments, by the parsimony of the present Government, in order to save a little money. A short time afterwards this affair came on, and it was necessary to send to Jamaica for soldiers, and thus much valuable time was lost. Even they were not sufficient, and some of the cream of the British army, the 42nd Highlanders, the "Black Watch" of Sir Walter Scott, had to be sent out : they were troops quite unsuited to such work, and very probably would suffer more from the climate than from the bullets of the enemy. We should scarcely have had a footing there if Naval forces had not been landed ; and much of the later success was owing to the skill with which a few "blue jackets" had been handled, and they appeared to have been the first British forces who crossed the Prah. He hoped it would go forth that English people would not sympathise with any Government which deprived the Colonies of the aid of African troops ; and in conclusion expressed his gratitude to Mr. Richard MacDonnell for the able manner in which he had put forward the facts he had collected on this important subject.

Mr. HUTCHINSON said it seemed to him that not only Sir R. MacDonnell but the public in general were under a mistake with regard to the state of affairs in Africa. Not long ago he read an article in a leading journal which said that the result of our efforts to christianise Central Africa was the Ashantee war. The remarks of Mr. Swanzy had shown how small the trade was, and confirmed the view that our relations with Ashantee previous to

this war were not very important. Therefore, when it was said that in consequence of this war we were to entertain the prospect of withdrawing entirely, the whole thing was founded on a mistake. Our settlements on the West Coast were originally founded for the purpose of helping the slave trade, and were afterwards continued for the purpose of checking it, and they extended over an area of country very much larger and more important than the Gold Coast was or ever would be. If England ever entertained the notion of abandoning her position on the West Coast of Africa, it would be, even from a trading point of view, as great a mistake as could be committed. Our position there not only gave us an opportunity of developing commerce, but of bringing to this country many African products, which were of the last importance to our own manufacturers. During the last few years the trade with the West Coast had developed to such an extent as would satisfy anyone interested in the matter that it was only necessary to pursue the policy suggested by Sir Bartle Frere to ensure for us a power and position, and an opportunity of doing good and of christianising and civilising Western Africa, which it would be a great pity not to take advantage of. He had seen letters received from Sierra Leone that morning which spoke of Sir G. Wolseley being within forty miles of Coomassie, and of one German missionary being sent to him with terms of peace, and that he had refused to accept any terms except such as he should dictate in the capital. That letter, therefore, in no way confirmed the telegram to which allusion had been made.

Mr. EDWARD WILSON said he regretted at the time the disbanding of the West Indian regiments, which England had since sadly felt the want of. Within the last few years a very marked modification of our Colonial system had taken place. At a very critical time in the history of one of our most interesting Colonies, it was decided by the Ministry—the last days of which were now at hand—to withdraw the troops from New Zealand in the very crisis of the New Zealand war. Impressed with the importance of the occasion, and knowing something of New Zealand, he ventured, even though only a humble individual, to enter a protest against that course; but as it fitted in with the policy of the time, and was looked upon as a means of putting a stop to a very expensive war, which had been stumbled into much in the same style as the present one—from ignorance and mismanagement in the first stages—it was considered to be a very fine thing, especially as it would save the country a certain annual expenditure, and would force upon the Colonies the necessity of depending upon themselves. He ex-

pressed the opinion then, to which he still adhered, that that was a dangerous policy, and one likely to lead to very unpleasant results at some unexpected time. The result of that policy, which had occasioned the wanton disbanding of the West Indian regiments, was now seen, for a few of those soldiers within a few miles of Coomassie would be perhaps more valuable even than the very fine troops which were now there. The present was a critical time, for within the last few days the country had been plunged headlong into a most exciting political struggle, the consequence of which would be shortly a new Ministry; it was therefore very important that all colonists, and those who took an interest in Colonial affairs, and who wished to remain members of this great Empire, and did not desire that its powers should be split and scattered to the winds, should plainly enunciate their views with emphasis, so that those to whom were entrusted the affairs of the Empire might make their selection between two distinct courses of policy. In recent times there seemed to have been a hesitation between those two courses, and great mischief had arisen. Either the British Empire was to continue as it now was, an aggregation of wonderfully progressive states, each showing their special characteristics of progress and modes of political development, or she must prepare at some day—nobody knew how soon or suddenly—for a separation into a set of little states, of which no human being could predict the future. He hoped the new Ministry would be urged to make a selection between these two courses, that people might know what to expect. Under the last Ministry assurances had been given that the Colonial Minister was as staunch as steel, but at the same time whispers were heard that other Ministers were by no means as staunch as many other kinds of metal; and no one who felt interested in Colonial affairs could have watched the course of policy pursued of recent years without great misgivings as to what it would end in. They did not want to be trifled with, but to have a distinct policy enunciated, and supported both in Parliament and in the press. They had been told in very emphatic language that the sooner Canada went off the better; but he thought any man who wrote like that wrote rashly upon a very large subject. His opinion, and he held it very strongly, was that if the Empire began to crumble away, it would not be very long before the whole thing came down with a crash. As an Englishman, even more than as a colonist, he demurred to such a course; because, though interested in one of the finest Colonies in the world, he thought the future of that Colony was assured, whatever might happen to its connection with

the mother-country, but as an Englishman he looked with the greatest dismay upon any proposal for separation. After condemning the language recently used by Mr. Bright, at Birmingham, with reference to the Ashantee war, he repeated his advice to all interested in the Colonies, to insist on the new Ministry enunciating a plain policy on Colonial questions; they wanted a distinct choice made between the brave, manly policy of olden times, and the shuffling policy of modern days. The question for Englishmen was whether they should hold high the flag inherited from their fathers, or exchange it for a miserable rag of mistaken policy, which would withdraw and disband troops in all parts of the world for the sake of saving a few half-pence here and there.

The Hon. W. MacDOUGALL, C.B., having had some experience in dealing with savage tribes in another and distant part of the world, begged to add his testimony in confirmation of the general soundness of the views expressed by Sir Richard Macdonnell as to the proper method of ruling them. Mistakes have no doubt been made on the Gold Coast, but it ought to be a cause of satisfaction to all that the general in command of our forces had been able to bring the war to a close in a few weeks, and with trifling loss. It was a point worthy of mention that Sir Garnet Wolseley had spent some years of his life in the Colonies, where he had acquired that experience of the "bush" that had proved so useful to him in his present campaign. He believed his first independent command was the expedition, composed largely of Canadian Volunteers, which was sent against the rebellious half-breeds of the Red River, in British America. He had seen, a few days since, an extract from a letter of Sir Garnet Wolseley to a friend in Canada, regretting that he had not two or three hundred Canadian Volunteers to accompany him to the Gold Coast. Men trained to arms in a new country were more fertile in resource, and more accustomed to the fatigues and difficulties of savage warfare, than any force organised in Great Britain. And this was another illustration of the advantage, in a widely-extended Empire like ours, of giving both officers and men a Colonial experience. (Cheers.) Sir Garnet Wolseley had fortunately been able to take with him Colonel M'Neil, Captain Huyshe, Captain Butler, and other officers, all of whom had learned much useful woodcraft in the Red River Expedition, as well as something of the art of fighting and subduing semi-barbarous tribes. With reference to the remarks of previous speakers upon the cowardice of the Fantees and other Coast tribes, in contrast with the more warlike Ashantees, he would remind them that this was a result which ought to have been anticipated. Our experience in North America

proves that the first result of what we sometimes call "civilising" the aboriginal races is weakness and demoralisation. They learn the white man's vices long before they acquire his virtues. Even the missionary too often fails to arrest the deteriorating influences of the white man's presence. He was not surprised, therefore, to hear that the African tribes who have been for years in contact with the traders and Europeans of the Coast had lost some of their native courage and spirit, and were now unable to cope with their more savage, more vigorous, and less civilised countrymen of the interior. But did this justify us in abandoning them to their enemies? He entirely agreed with Sir Richard in negating that proposition. A better system of administration must be introduced. It was absurd to treat the Fantees as you would treat white men. They are evidently incapable of anything like civilised self-government, and certainly such refinements as a Court of Bankruptcy must be very ill-suited to their wants. (Laughter.) He entirely agreed with Mr. Wilson as to the mistaken policy of the past in Colonial matters, and he hoped that the political changes now imminent would lead to a new and somewhat improved policy in the future. (Cheers.) On many questions he must say he sympathised with the views of the outgoing Ministry, but he had found among their political opponents more earnest zeal for maintaining the Imperial dominion, and a stronger sympathy for those who were defending the outposts of the Empire in the Colonies. He confessed, however, that he was not much encouraged by the statements of leading politicians and leading newspapers during the recent contest. Scarcely a single reference had been made to the Colonies by either party. They seemed equally afraid to touch the question. He trusted that this reticence would not continue—that in the formation of the new Government care would be taken to place the Colonial Department in able and friendly hands; and that no colonist would have occasion to feel any apprehension as to the future, but that a vigorous, a manly, a straightforward, Imperial policy would be henceforth assured to us. (Cheers.)

Mr. W. McCULLOCH TORRENS, as one of the survivors of the wreck, said he must demur strongly to the observation just made to the effect that the country was indifferent to Colonial matters. He could only say that he had recently had to deal with one of the largest constituencies in England, and he never thought it either political or right to at all shirk this great question, nor had he ever failed (he hoped in appropriate terms), even upon trying occasions, to put very plainly before those whose franchise he sought the duty, the policy, and the necessity of having fixed ideas on the

great question of Empire, and he was prepared to say that whoever might be in power, or hold the reins of government, the instincts of the country in the main were sound, and its feelings would be best consulted by strengthening and consolidating the Empire. At the same time, a busy community like the English could not always be standing on tiptoe looking over the borders, to see that everything went right in distant parts of the world. It was the English habit, whether right or wrong, to take it for granted that everybody else was doing his duty, as well as those at home; and therefore Englishmen were slow to be moved by apprehension as to the whole concern going to pieces. The experience of several years had taught him that no Government could retain the confidence of either House of Parliament which showed a shabby tendency if danger threatened any portion of the Empire, or where it was necessary to take the responsibility of efficient measures. What would be the question in the coming Session of Parliament? Not whether there had been sufficient efforts made during the last few months; but probably the great question amongst military men was whether there had not been waste of money and excessive preparations. He had heard nothing in society during the last six months but constant discussions as to whether this or that was necessary. He did not object to the Admiralty and the War Office being catechised, and being obliged to answer for their acts; but he hoped none would go away with the idea that any great class in the country desired or expected that the Government would not do all that was necessary to maintain the supremacy of the Queen in this portion of her dominions. Probably those who had neglected their departmental duty, if by so doing they had got us into this scrape, would be judged very rigorously; and that was only fair, for if they take the pay and power of Government, they must take the consequences, and answer for what they had done. But far above all questions remained that great one of principle, which he hoped would be echoed from that meeting and throughout the land that there was in this whole country a heart throbbing sympathetically with the wants of those communities, whether of English blood or acquired by English arms, which acknowledged the same Sovereign. If that feeling should ever slacken it would be the duty of all to rally under such good auspices as the nobleman in the chair, to remind the country of its duty, and to tell, whoever might be in power, that England expected not only the men who went to fight, but those who stayed at home, to do their duty, and that a most important duty was to leave their children, untouched and undiminished in lustre or cohesion, the splendid heritage which their fathers had left to them.

Mr. LABILLIÈRE begged to remind Mr. MacDougall that Mr. Disraeli in his first address had laid great stress upon the question of the integrity of the Empire ; and, on the other hand, Mr. Goschen, in the City of London, spoke with equal ardour and attachment to the same principle. Lord Sandon, also, at Liverpool, had spoken in the strongest terms of the necessity of cementing and consolidating the Empire, so that it was not quite accurate to say that these questions had not been referred to during the recent contest.

The CHAIRMAN then briefly proposed a vote of thanks, which was passed, to Sir R. MacDonnell for his able Paper, and the proceedings terminated.

AN Ordinary General Meeting of the Institution was held at the Theatre of the Society of Arts, on Tuesday, the 24th March, 1874, His Grace the Duke of MANCHESTER, President, in the chair.

It was announced that bills of lading had been received of a valuable collection of specimens of Tasmanian Woods and Coal from the Government of Tasmania, as a present to the Institute.

Mr. LEONARD WRAY read the following paper on

SETTLEMENTS ON THE STRAITS OF MALACCA.

Until within the last few months, comparatively very few, even in this generally well-informed country, knew anything about the Straits of Malacca.

They had possibly a vague notion that it was somewhere in the East, but its exact locality, or any definite information appertaining to the important Settlements which exist thereon, was a trifle beyond their knowledge.

And yet these Settlements, so little known by the general public, so little appreciated by our Government officials, possess an importance to us as a nation which cannot easily be over-estimated.

Very recent events have to a certain extent aroused public curiosity, and imparted to the questions involved an amount of interest which, I hope, may lead to a proper recognition of their value to England's Empire.

It cannot be gainsaid that, had the value of these questions been rightly estimated in the past by the Home Government, and had they been treated with that sagacity and far-sightedness which they demanded, we should have seen to-day a condition of affairs in this part of the world very different to that actually existing.

As I proceed, I will endeavour to justify this assertion, by adducing facts which are tolerably patent.

In the first place, however, allow me to direct your attention to what we mean by the Settlements on the Straits of Malacca, which I am about to treat of.

The Strait itself lies between the Malayan Peninsula and the Island of Sumatra, and is about 520 miles long, and from 25 to 200 miles wide. The Malay Peninsula, which is an elongation of the Siamese Continent, commences at the River Pâk-Chan, in latitude 10° north, and terminates at the extremity of Johore, opposite the Island of Singapore. The great Island of Sumatra runs from latitude 6° north to 6° south (making between these two points about 11° of longitude), and is about 1,050 miles long, by 165 average width. The greater portion of the island is therefore

to the south and east of what is properly termed the Strait of Malacca, which, strictly speaking, terminates nearly opposite Singapore.

This Strait is, and long has been, one of the great high roads from Europe to China; but now that the Suez Canal is opened, as many as ten to twelve steamers sometimes pass into and out of it per day, and we may confidently expect that this number will go on increasing.

Besides these vessels passing onward to China, Japan, Australia, &c. are those by which more particularly the commerce of Penang, Malacca, and Singapore is carried on, the extent of which I shall endeavour to set forth as I proceed.

At the north-western end of the Strait, the British Settlement of Penang keeps watch and ward, whilst at the south-eastern extremity our Settlement of Singapore performs the duty of a British sentinel, in addition to its commercial operations. Between these two, 250 miles from Penang, and 100 miles from Singapore, is the neglected but important Settlement of Malacca itself, from which the Strait takes its name.

These three (together with Province Wellesley, which appertains to Penang) comprise the British possessions on the Straits of Malacca; and we shall see that their value is such as to render the absolute security of the Straits an object of paramount importance to the British Empire, as well as to the commercial world.

But besides the English possessions are those of the Dutch, who have established themselves at Delli, and other places on the Island of Sumatra, and who are now putting forth all their strength in order to conquer, and settle themselves in Acheen, in the extreme north-west part of that island.

Before, however, entering more fully on the subject of these European Settlements, it may be well to take a very brief glance at the early history of the Malayan Peninsula, and of Sumatra, as it may serve to convey to our minds some idea, however imperfect, of some of the changes which in bygone times have occurred in these countries.

Anything like authentic records do not extend back very far into the remote past, and it is a research of no small labour and difficulty to pursue one's inquiries beyond those records, and to sift the probable truth of the accounts which have been handed down through so many ages.

During many years of my life, I have sought information, and utilised every opportunity that presented itself, tending to throw light upon the early history of this interesting part of the world;

but I cannot avoid a feeling of great diffidence in now offering a short summary of the conclusions I have formed.

That the original inhabitants of the whole Peninsula, from Tenassarim down to Johore Point, were of the Negro type, is almost beyond dispute; and even to this day many of these aborigines are to be found, with jet black skins, woolly hair, thick lips, flat noses, and of somewhat diminutive stature. By the Malays they are named Samangs, some of whom are now very partially civilised, whilst the majority remain in the mountains and swamps of the interior, in the lowest state of savage existence.

I know no reason for assuming that this Oriental Negro race ever occupied a higher place in the scale of civilisation than the miserable remnant do now. Wherever they are still existing, they are savages of the lowest type, and such they seem to have ever been.

In course of time, the character of the country invited the visits, and ultimate settlement, of a higher class of people, who drove the Samangs from the coasts into the interior, and became masters of the country.

These again have, from time to time, been conquered by others, from the Malabar coast, from Bengal, from Birmah, from Siam, and probably from other parts.

Tenassarim was once thickly populated, and so was the whole Peninsula, to Johore Point. A commercial and agricultural community of no ordinary character, traded with the Chinese and other nations to the East, and with the mariners of Tarshish and others to the West.

The men of Tarshish, taking advantage of the monsoons, sailed from the coast of Africa (*i.e.* the Red Sea) to Ceylon, and from thence to India and to the Straits of Malacca, returning laden with the rich products of those countries: spices, sugar, gums, fragrant oils, precious stones, tin, gold, silver, ivory, and apes and peacocks. The Bible record evidently points to this fact, as there are certainly no peacocks at Sofala, or anywhere on the coast of Africa.

It is probable that for a thousand years or more before the time of Solomon, this active trade had been carried on between these various countries, and that even the enduring timber, as well as the highly-prized sandal, and other scented woods, formed part of these cargoes.

It is also tolerably certain that the worship of Baal was the prevailing religion upon these coasts, until in later years succeeded by Buddhism, and other forms of Indian worship.

More than 1,000 years ago, the whole of this country was in the possession of the Thay Jhay, a race once famous for its learning, and for the power of its empire.

This nation, numerous monuments of whose power and grandeur are still existing, is known to us as the Siamese, our present neighbours, and our friends.

But how fallen from their high estate, how reduced in territory, in power, in influence, and in splendour from those days when she held sovereign sway over all the coasts of Bengal, from Chittagong to Johore !

Constant and long-continued wars, attended by frightful slaughter, have not only shorn her of territory and power, but have left that territory a depopulated wilderness of forest, jungle, and swamp.

As her former power decayed, or was torn from her, so her outlying possessions became, one by one, either wholly or in a measure independent of her ; and thus we see, that the whole Peninsula is now ruled by a number of petty chiefs, or Rajahs, such as Ligor, Quedah, Perah, Salangore, Johore, &c. (always excepting those small portions comprising our Province Wellesley, and Malacca).

Turning now to the great Island of Sumatra, on the southern side of the Strait, we find a country so abounding in agricultural capabilities and mineral wealth as to be unsurpassed by any other portion of the globe. Even the rich islands of Madagascar and of Java cannot compare with it ; and it only requires the fostering hand of a powerful and enterprising nation (like the British) to become one of the most productive and important islands in the world.

There can be little doubt that the people on this side of the Strait played a conspicuous part in the commercial activity which in very remote times reigned in this great thoroughfare.

This very activity has had the effect of producing a very remarkable intermixture of races ; which in my opinion has in one branch given rise to a people, who are now almost regarded as a distinctive race, although no proper grounds have ever been adduced for so considering them. Of course I allude to the Malay, or Malayan race—who have gradually become possessed of characteristics as distinctive as those which mark the great English race.

They appear to derive their name from the River Malayu, which is in Palembang, an ancient kingdom on the north-east coast of Sumatra ; and they habitually call themselves “ Orang-Malayu ” (Malayu men), and also (curiously enough) “ Orang-Laut,” or “ Men of the Sea.” This latter designation is, to my mind, both signifi-

cant and highly suggestive, not only of their roving habits, but of their origin.

It is held by several writers that the Malays came originally from this kingdom of Palembang; but I think that there are strong grounds for looking far beyond this spot for the actual origin of these people. The very name they give themselves, "Orang-Laut," or "Men of the Sea," at once suggests to the mind the traditionary idea existing among themselves, that they came from the sea, or beyond the sea.

There appears to me a strong probability that the traders from Japan to the Loo Choo and the Philippine Islands, and so onward, skirting Borneo, first found their way to the Straits of Malacca, and subsequently continued their periodical voyages, being from time to time accompanied by their female friends from the Philippine and Sooloo groups of Islands, and gradually established a kind of trading Colony at Palembang, which became the resort of the Javanese and other neighbouring races, until at length this community of mixed breeds became numerous and powerful enough to spread over the whole district and to erect themselves into a kingdom. Such a people, so formed, and in process of time consolidated into a kingdom or nation of restless, roving traders, might well designate themselves as "Men of the Sea."

Whether this be their true origin or not, it is quite certain that, with restless activity and lawless pugnacity, they have spread themselves throughout the Eastern seas and islands, conquering here and there, and making themselves generally feared and dreaded.

We are told that in the year 1160 they took possession of the extreme end of the opposite peninsula and built a city, which they named Sincapoor; and that in 1252, being driven out by the King of Majapahit, in Java, they retreated to the westward, and founded Malacca; which means no more, I believe, than that they took possession of places already existing, and infused into them new life by their energy and activity. In this manner they extended their authority, not only over almost all the Malayan Peninsula, but over several districts in Sumatra.

In the year 1276, the first Mahomedan prince ascended the throne of Palembang; and during a reign of fifty-seven years acquired great celebrity both by his numerous conquests and by his vigorous propagation of the Mahomedan faith throughout his dominions. It was this able prince, Sultan Mahomet Shah, who is said to have first established the Malay power in Acheen, at the very north-western extremity of the island, and he very greatly

encouraged the Arab and other traders to visit and establish themselves in that district.

The impetus given to trade by this and succeeding rulers soon brought to the country a diversity of people speaking Arabic, Hindoostani, Tamul or Moplay, Siamese, and all the jargons of the East; but in course of time the Tamuls or natives from the Malabar coast became sufficiently numerous to impart their physical character to the race itself.

It can be understood, then, that the Acheenese are a very mixed breed, of Malays, Battas, Javanese, Tamuls, Arabs, Siamese, Hindoostanees, *cum multis aliis*—the Tamul predominating, the prevailing religion being Mahomedan. The Portuguese, under Dom Diego Lopez Siqueira visited Pedeer in the year 1500, and were not long in getting up a quarrel with the Acheenese, but could form no lodgment on this part of the coast, although they succeeded in enlisting against their nation the unceasing hostility of the Acheenese, who lost no opportunity of attacking and harassing them, from the time they took Malacca in 1511 until they lost it in 1640.

About the year 1586, the power and importance of Acheen had become very great; it was feared, respected, and courted by its most potent neighbours, and it possessed a most flourishing trade. Its chief port was crowded with merchant traders from all parts, and all were protected and enjoyed perfect security, except the Portuguese, who were plundered and maltreated on all occasions.

In 1600 (or just 100 years after the Portuguese) the Dutch visited Acheen, and their bearing having given great offence to the people, they were nearly cut off; but they had the art to dissemble their feelings, and eventually got on fair and even friendly terms with the Sultan.

In 1602 Acheen was visited for the first time by English ships, under Captain Lancaster. They were received with extraordinary ceremony and respect by the Sultan, who seemed most favourably impressed by the naval force of the English visitors, and by the frankness of Captain Lancaster.

In 1607, the Sultan Peducka Siri assumed the title of sovereign of Acheen, and of the countries of Aroo, Delli, Johore, Paham, Quehah, and Perah on the one side, and of Baroos, Passaman, Ticoa, Sileda and Priaman on the other.

In writing to King James the First, in 1613, he assumed to himself the style and title of King of all Sumatra; and in that letter he modestly begs our wise monarch to send him out an English wife, promising to make her son king of all the pepper countries.

This tempting offer, however, did not succeed, as the sagacious James thought that some monster cannon (warranted to burst if ever used for warlike purposes) would be a safer present, and possess more charms in the eyes of such a king than even a pretty English wife! Acting on this wise resolve he sent him two brass cannon of extraordinary size, the bore of one being eighteen inches, and the other twenty-three inches in diameter, both being of such slight thickness as to deter even an Acheenese from attempting to fire them off. The Sultan received these "great guns" with immense satisfaction, and ever since they have been the admiration of succeeding generations of Acheenese. We learn, however, from the *Pinang Gazette* of the 5th ultimo, that one of these venerable pieces has at length fallen into the hands of the enemy, the Dutch having found it in the Craton. It may be interesting to relate that this brass gun is described as being ten feet long and eighteen inches bore, and has on it the following mark: "Thomas and Richard Pit, Brethren, made this Peece. Ano. 1617."

It is instructive to remember, that although the Dutch could not conquer the Acheenese in those days, yet they found the means of obtaining their assistance against their rivals and enemies. Thus, in 1640, they made a final grand attack on the Portuguese at Malacca, with twelve men of war, aided by twenty-five Acheenese war-prows, and succeeded in taking the place, and ousting their rivals.

The Dutch also established themselves on various points, both on the east and the west coasts of Sumatra; first as mere traders, then as masters—building forts and endeavouring to control the whole commerce of the country. But it is a notorious fact that their harshness, injustice, and cruelty have always made them hateful to the natives, whilst their intense jealousy of other European nations has made them extremely disliked and distrusted.

We turn now to those Settlements on the Straits of Malacca which belong to Great Britain. These comprise, as I have already said, Singapore, Pinang, and Malacca, which are governed by a Governor, Sir Andrew Clarke, who resides at Singapore, and two Lieut.-Governors,—Colonel Anson, at Pinang, and Major Shaw, at Malacca.

The Governor has now a complete Colonial Government, consisting of a Legislative Council, Chief Justice, Colonial Secretary, Attorney-General, Surveyor-General, &c. &c.

The military force at his command is exceedingly small, but, on

the other hand, he can generally rely on a pretty considerable naval force, as Singapore is a naval station; and in case of emergencies troops could be poured into these Settlements from India at very short notice.

SINGAPORE.—This, although the youngest, is the most flourishing and most important of the three, and bids fair to go on extending in commerce and in wealth for many long years to come. It was obtained by purchase from the Sultan of Johore in 1819, and is situated at the south-eastern end of the Straits, in latitude $1^{\circ} 17'$ north, and longitude $103^{\circ} 11'$ east.

It is 25 miles long, by 14 miles greatest breadth, and contains about 210 square miles of fairly fertile, although by no means very rich, soil.

As it has always been a “free port,” it is resorted to by vessels of all nations, and its development as the great commercial *entrepôt* of the East has been rapid beyond all example. This rapid development has, however, received a very severe check, from causes which are very apparent, and cannot be ignored.

First, we have the ever increasing trade of Hong Kong. Then, the express pace at which Pinang is gaining on her rival. Thirdly, the influence of steamers passing through the Suez Canal, and going, without breaking bulk, direct to and from China and Japan, making Singapore a mere place of call. And lastly, with incredible blindness, no steps have been taken to give to her a back country—an agricultural district—to afford a scope for expansion, and to supply her, not only with agricultural products, but with a great agricultural community.

With an immense stretch of waste territory at her very door, loudly crying out for British settlement, British laws, and British security, it has been, and is, allowed to remain in a condition next akin to a howling wilderness, covered by forest jungle and swamps, the harbouring place of numerous wild beasts, and still worse and more cruel, of nests of pirates and murderers.

But no! “Singapore is a free port, the great commercial *entrepôt* of the East: what do we want (says the Government official) with agricultural lands, mining companies, and all such bother? Haven’t we enough to do already? Why should we be troubled to treat and bargain with a lot of petty native Rajas for their wretched lands?” And so the matter is allowed to go on; these valuable agricultural and mineral lands remain a waste,—piratical row-boats and prows swarm throughout the Straits,—atrocities of all kinds are rife within a stone’s throw of our Settlements, peaceful trading vessels are plundered and their crews massacred under our

very noses, and even Her Majesty's vessels of war are attacked and fired upon by these lawless wretches.

Yet all this could be changed, easily, and to the infinite advantage of all concerned, by a little energy, firmness, and tact. All this stretch of territory, from Province Wellesley to Johore Point, could be bought by our Government on equitable terms, the whole could gradually and rapidly be settled up, and industry, order, security, and happiness would reign, where now all is disorder, misery, and crime.

There seems, however, to be a change for the better already occurring. Sir Andrew Clarke, the new Governor, has taken *one step* towards an improvement, and if he is properly instructed and supported by our present highly respected Colonial Minister, none of us can doubt that he will take measures for securing and opening up this range of country to the enterprise of industrious settlers, and for placing them under British institutions.

The trade of Singapore is almost wholly foreign to herself; she is simply the *mart* to which Eastern produce is brought for sale, and from which the merchandise of Europe and America is distributed throughout the Eastern seas. The extent of this commerce is very great, and its growth has been very rapid. Its imports and exports are worthy of remark.

In 1823-24 they amounted to over £2,500,000 sterling; in 1859-60 they had increased to £10,471,396; and in 1871 they amounted to £14,613,696; but it must be observed that in 1865-6 they amounted to within £221,226 of this sum, whilst in 1868 they fell off fully two millions. That they have rallied again in 1871 is a hopeful sign, and I cannot see any reason for apprehending any falling off in the future.

The shipping of the Colony in 1871 shows 2,890 ships of 1,391,752 tons entered, and 2,995 ships of 1,144,074 tons cleared, being an increase over the year 1869 of 324,600 tons entered, and 209,414 tons cleared, or about one-third in the gross tonnage entering the Settlements; and this has been exclusively in British ships, of which 431 more entered in 1871 than in 1869.

This is a very satisfactory increase, which we must hope will continue, although, as I have already said, I imagine many ships now enter only to discharge a very small portion of their cargoes, being onward bound.

Population.—A census was taken in 1871, and the returns may be considered as accurate as circumstances allowed.

In the three Settlements there is a total of 308,097, out of which there are only 1,730 Europeans and Americans; Hindoos, 9,166;

Eurasians (or half-castes), 5,772; Javanese, 4,665; and the rest are of twenty-one different nationalities, principally Eastern.

From this it will be seen that there exists in this small community an admirable opportunity of forming some singular admixtures of races,—if that will improve them.

Amongst these the Malays and Chinese greatly preponderate, but there is this difference always to be borne in mind, viz. that whereas the Malays are mostly if not wholly fixtured, the Chinese and other nationalities are ever coming and going—staying in the Colony to earn money, and then returning to their own countries.

The revenue of the three Settlements in 1869 was £279,022, and in 1871, £298,711; the expenditure being £247,425 in 1869, and £266,495 in 1871; the increase arising in the land revenue, which was due mainly to the increased demand for land for agricultural purposes.

Formerly there were two sugar estates, and several fine nutmeg plantations, but the former no longer exist, and the latter were swept away by the disease which some years ago destroyed all the nutmegs in these Settlements.

Europeans have taken to growing cocoa-nuts, and some of these plantations are now beginning to yield good returns.

One French gentleman has recently started a tapioca estate, and is said to be doing well, and making money.

The Chinese, who are the principal agriculturists, cultivate tapioca, cocoa-nuts, pepper, gambier, and sugar, but not in large quantities; and around Singapore, on sundry small islets, they grow immense numbers of pine-apples.

Latterly, much fruit is cultivated, the sale of which to the numerous ships has become very remunerative.

It would be unpardonable to omit mention of the extreme beauty of Singapore, surrounded as it is by numerous islets, and by the main land of Johore, all clothed in the most luxuriant vegetation. It struck me, as I think it must strike everyone, as being one of the most picturesque and lovely scenes the eye can rest upon.

The Settlement of PINANG next claims our attention. It comprises the island itself, called by the Malays Pulu Peenang (Betel-nut Island), and Province Wellesley, which is on the mainland just opposite and close to it.

It is situate at the north-west entrance of the Straits, in latitude $5^{\circ} 25'$ north, and longitude $100^{\circ} 21'$ east, and is about 14 miles long, by 10 miles broad, containing about 75,000 acres. It is very hilly, the highest range being about 2,500 feet above the sea, affording to the inhabitants a charming retreat and a delightful climate,

the temperature averaging not more than 72 degrees Fahr. On the lower hills of course the average is somewhat higher, although still temperate.

The rainfall is about 50 per cent. more than that on the plains below, and all the hills are clothed with an abundant and constant vegetation.

Numerous bungalows are erected in various elevated spots, but especially on "the Hill;" all of them delightful abodes, in which comforts abound; health is quickly restored, and life is truly enjoyable.

A short drive and a ride of six miles takes one from the heated town up to the highest range, so that it can readily be imagined how much they are frequented, both by residents and by visitors. At the foot of the hills is the celebrated water-fall, so well known and so much admired by all who have visited this lovely island.

Government has a house on the hill, and there is also a convalescent bungalow for invalids.

The British acquired this island in 1786 by purchase from the Quedah Raja, and in a similar manner they obtained, in 1800, a strip of about twenty miles along the opposite shore of the Peninsula, which they named Province Wellesley. This strip of land originally comprised about 25,000 acres of land only, but a small portion lying back from the shore has been since added to it.

By the mail recently arrived, we learn that our new and energetic Governor, Sir Andrew Clarke, has since his arrival found time and opportunity to conclude a treaty (bearing date January 20th of this year) with the chiefs of Perak, whereby the anarchy reigning in those States will be abated; the advice of a British official resident must be asked and acted upon, and the land, on our southern boundary, drained by the Kreean River, is declared to be British territory.

The new boundary line has yet to be marked out by Commissioners, so that we do not know how great an extent of land may be included in this promised acquisition.

Already applicants are numerous and eager to obtain this land, so much so that in a brief space of time all will be applied for, and taken up for industrial purposes.

We have seen the great and rapid increase in the commercial prosperity of Singapore, an increase which, at one period, threatened to swamp Pinang altogether; let us now glance at the commercial condition of this active little settlement. From 1810 to 1825-6, its imports and exports continued at about £1,108,000, whereas in 1864-5 they amounted to nearly £4,500,000; in 1868

they fell to less than £4,000,000; in 1869 they rose again to £4,429,597; and in 1871, to £7,269,415, beyond which year I have no record. It will be observed, however, that whilst in Singapore the increase in imports, in these two years, was only about 15 per cent., in Pinang the increase was nearly 80 per cent. In exports, the increase at Singapore was about 18 per cent., whilst those of Pinang amounted to upwards of 52 per cent.!

The late Governor, in his report to Government, in alluding to this increase, says: "These figures furnish additional confirmation of the opinion expressed in my report in the Blue-Book for 1868, that the trade of Pinang would continue to develop itself (as it had for years past) in a larger proportion than that of Singapore. In 1861, the imports and exports of Singapore were to those of Pinang as ten to three; in 1871, they were as ten to five."

There is another point of comparison, which is of great value, as showing the force of the argument I have already employed, and it is, that whereas Singapore exports produce of her own to the amount only of about £40,000, Pinang exports agricultural produce of her own amounting to upwards of half a million per annum.

This great and steady expansion of the trade of Pinang leads me to think that it may yet equal, if not exceed, that of Singapore, unless some measures are quickly adopted for giving to this latter Settlement a considerable tract of agricultural land.

The Island of Pinang once produced a large quantity of nutmegs, and some cloves; but since the disease killed these valuable plantations, little exportable produce is derived from it, save cocoa-nuts, oil, and coir.

It is from Province Wellesley that the agricultural produce comes, such as sugar, rum, tapioca, rice, cocoa-nuts and their oil, pepper, coir, &c. Some of the sugar estates are very large, making, in one case, from 1,000 to 1,200 tons of sugar of very excellent quality per annum, and many more would be established if the planters could get suitable land, as they may hope to do so soon as the Perak lands, now being acquired, are open for selection.

It should, and no doubt will, be the great object of the local Government to reserve the best tracts of land for Europeans, who will establish large estates either as private properties, or as companies with sufficient capital. I venture to think that such a course will be in every way better for the Settlement than to allow all the best lands to be grabbed by alien Chinese, and converted into swampy, paddy fields, or into small, patchy cultures.

Very little of the land in the province can be considered as being naturally fertile, the greater portion of the soil being composed of

granitic *detritus*, very slightly (more or less) overlaid or intermingled with vegetable matter, which by the course usually pursued by the Malays and Chinese yields two or three crops, and then requires ample manuring to enable it to produce anything like good returns.

On the banks of the Prie and the Moodah, and in some other particular localities, more of an alluvial soil exists, and here we find it of a richer and more enduring character.

As I clearly pointed out twenty-six years ago, a very broad distinction exists between this comparatively poor granitic soil and the rich volcanic soils in some of the West India Islands, and in Sumatra, Java, &c. I do not know of any volcanic action along the Malayan Peninsula, whereas, curiously enough, a well-ascertained volcanic belt runs through Sumatra, Java, and along the chain of islands south-eastwards to Timor, from which it seems to continue on through almost the centre of New Guinea to New Britain; whilst another, and apparently the main belt, branches off from Timor northwards, through Bouro, the Moluccas, the Philippines, and on to Japan and the Kurile islands.

No one, therefore, must look for very rich soil in Province Wellesley or in Perak; but what the planter may make sure of is, a fairly healthy climate, good seasons, sufficient rain-fall, an equable temperature, and last, though not least, an abundance of cheap labour; and these conjoined to the advantage of being close to the sea and shipping.

With so many points in his favour, it must be strange indeed if the Pinang planter cannot cultivate and bring his crops to market at a considerable profit.

Believing in the capabilities of the province, I was determined, in 1868, to attempt the cultivation of tea, vanilla, and india-rubber on our estate, and went to great expense in sending vanilla cuttings from the Mauritius, and india-rubber cuttings from Ceylon, and in getting tea-seed from Assam (through our manager). As a matter of course, I was opposed and thwarted, and by none more so than by our own manager, who allowed all the india-rubber and vanilla cuttings to die (if ever he planted them), and although he did get the tea-seed, and sowed a few acres, he nevertheless emphatically declared that it was a waste of money, that Pinang being so near the Equator was too hot for the Assam tea-plant, and that he had no faith in it.

In spite of his prognostications, our tea-plants have done well (although they were very badly planted), and some of the tea manufactured from them has been pronounced equal to that from Assam,

and has sold for 2s. 7d. per lb. wholesale, in bond. Now that the culture has proved a decided success, this manager (now dismissed) very amusingly takes to himself all the credit of introducing this new industry in the Straits.

It may interest many to know that we have ceased picking, simply to allow the bushes strength to bear more seed, and that our present agent intends to plant out about 125 acres more in young seedlings this year.

He is also pushing on the culture of the vanilla, from other cuttings obtained from Java.

We cannot do otherwise than hope that these and many other useful and valuable plants may from time to time be introduced, and become successful in the Straits.

The labour market has until recently been very well supplied; but latterly the Indian Government has interfered, and thrown grievous obstacles in the way of free emigration from the Madras coast, whence our best labourers come.

Formerly the Kling (or Tamuls) were free to emigrate as they liked, and everything went on smoothly and well: the people came and went, making money in the Straits, and then returning to their families, and perhaps going back again to the Straits to repeat the same thing. Now a busybody official, wishing to show his activity and zeal, has caused all this to be altered. He disinterred some old Act by which such free emigration was forbidden, and although strong representations were made to the Indian Government on the subject of these restrictions, and it was probably desired by that Government to relax them, yet it appears that they have substituted regulations which do not afford the remedy applied for, but have a tendency to throw the planters requiring coolies into the hands of agents on the Madras Coast, who, instead of forwarding strong, healthy men, pick up any emaciated, sickly creature they can get hold of, and send them on their voyage to Pinang.

This shameful conduct has led to the only result that could be anticipated, viz. that these poor creatures, already weak and sickly, suffer sea sickness on the voyage, and are thus landed and thrown on the planter's hands in a condition befitting them only for a hospital and careful nursing. Hence, with all the planter's care, many of them get dysentery and die on reaching the estates.

Our own manager, a most experienced and humane gentleman, was so incensed at this conduct that he wrote an indignant letter to the Madras agents, forbidding them to send any more to him.

Why the Indian Government will not allow strong, healthy men

freely to emigrate and better themselves and families, if they wish to do so, passes one's comprehension.

We see gaunt famine raging throughout many districts of India, and yet if these poor fellows want to go to a British Colony like Pinang, where employment and plenty await them, our enlightened Government of India steps forward and says: "No: you shan't go. You must stay where you are, unless somebody sends for you." So whether they and their families starve or not, there they must stay until some planter or other sends money to engage them.

Does this not appear incredible? and yet it is quite true. It is a bare statement of existing facts.

No doubt the Indian Government means well; it wishes to protect and defend the coolies from harm, and to be assured that before they leave their native shores certain employment shall be secured to them; but unfortunately that paternal solicitude, although most praiseworthy in the abstract, is lamentably deficient in the means adopted to effect its object. By very recent intelligence we learn that famine is already making its appearance in Orissa, and that the homes of these very people will probably be desolated by horrors similar to those of Bhagulpore and Tirhoot.

In the name of common sense and humanity, then, let these unwise restrictions be removed, and let these industrious people be free to betake themselves to those British Colonies in which their services will be gladly accepted, and they will earn a subsistence for themselves and their families.

Our next Settlement in the Straits is MALACCA, which is the oldest of all the European Colonies in this part of the world. It is situate on the mainland of the Peninsula, has a frontage on the Straits of about forty-two miles, and extends inland from ten to twenty-eight miles; the town itself being in latitude $2^{\circ} 16'$ north, and the climate, though hot and humid, is decidedly healthy. The Portuguese commenced trading with it in 1508, and captured it in 1511, after which they held it until 1640, when the Dutch, aided by the Acheenese, wrested it from them.

In 1795 they surrendered it to the English, who restored it to them in 1818, and received it back again in 1825, in exchange for Bencoolen. This was a short-sighted and most unwise bargain on the part of the British, and was rendered still more mischievous by the cunning stipulation of the Dutch, that the English should utterly destroy the strong and important fortifications for which Malacca was so famous.

From that time she has never regained her commercial and

(agricultural importance. Her port has gradually silted up until it has become a mere roadstead, too shallow for any but the smallest vessels to anchor near the shore; and for many long years she seemed sunk in lethargy and insignificance.

A change for the better has, however, been silently going on, and she is beginning to participate in the general prosperity. Her imports and exports, which in 1825-6 were only £318,426, amounted in 1868 to £844,453, in 1869 to £1,015,800, and in 1871 to £1,029,754; this increase being due principally to her agricultural development, and to the working of the tin mines in the neighbouring Malay territory.

But these figures do not convey to the mind any idea of what Malacca (under another name) was once. When she was a great trading emporium, sending forth the riches of her country, and of her commerce, even to Egypt, Palestine and Rome, to China, and to Japan. When her beautiful hills and valleys teemed with industrious labourers, and produced not only the costly spices, fragrant gums, and crystallised honey (as sugar was then termed) which we read of, but also the mineral treasures which so greatly abound throughout her lands.

The account given us in the Bible of the gold from Mount Ophir involves the question as to what country was alluded to, and this has become a standing puzzle, and a great bone of contention. I believe India was meant, but whether it was India Proper or India on the Straits of Malacca is a point which I shall not attempt to discuss, further than to remark that there is in Malacca a Mount Ophir, and that it is rich in gold is beyond dispute. But it must be observed that the word Oph means serpent, which is the symbol of Budha (that is, Wisdom), and that Mount Ophir simply means "serpent mountain," or "high place," on which the worship of Budha was carried on; and that there are several Mount Ophirs. Singularly enough, the Malays of Malacca look upon their Mount (or Bukit) Ophir as sacred, and abounding in spirits.

Besides gold, Malacca also contains other minerals, and amongst them is tin, which exists in very considerable quantities, but is not now produced—mainly, as I believe, from the pernicious practice resorted to by the local Government, of "farming," or letting out the dues or royalties on mines to Chinese contractors. These mining royalties, in theory, are fixed at ten per cent. on the gross product, but the overreaching "contractor" always manages, by numberless ingenious expedients, to screw out of his mining victims far more than the regular dues.

This most wretched system has naturally destroyed all mining enterprise in Malacca, which from yielding a revenue of £5,000 a year now produces nothing; or, as the official statement puts it, "the practice of tin mining has been almost entirely abandoned." It is quite clear to my mind that unless a decided change for the better is made, mining in Malacca, and in our Straits Settlements generally, will become a thing of the past. On the other hand, if placed under wise and encouraging regulations, the mineral produce of these Settlements will soon attain very great importance.

Population.—The recent census gave about 92,804, consisting of Malays, 57,474; Chinese, 30,456; Klings, 2,874, and about 2,000 of all other classes and nationalities.

I consider that Malacca offers very great advantages to European capitalists, both in mining and in agricultural pursuits. I was all over it, and carefully explored it in 1847, and am convinced that for sugar, tapioca, and cacao, Assam tea, indiarubber, vanilla, &c. it is admirably adapted, and will yet produce these in large quantities.

Before referring to other subjects, I wish particularly to invite your attention to a few brief observations on the subject of tin, which so greatly abounds throughout the whole of the Malayan Peninsula, the Tenassarim provinces, and northwards.

To the insufficiently informed minds of the many, it is, I know, almost worse than heresy and schism to even hint at such a circumstance as the production of tin in this part of the world for ages, perhaps for thousands of years, before the Phœnicians first visited our own Cornwall.

I must, however, with due respect to the numerous writers on the subject of the early production of tin, venture to say that these gentlemen all argue and follow each other in one groove; that, in point of fact, they have not carried their investigations far enough back, but have confined themselves to the mere threshold of this interesting inquiry.

With a view to brevity, I will put the matter before you as succinctly as I possibly can.

The first question is: "In what age of the world was this metal—tin—discovered and utilised by man?"

The answer is simple enough, viz.: "Previous to the 'Bronze age' or period, as it is termed; because without tin, bronze cannot be made."

How many thousands of years before Christ this "Bronze age" began, I leave for geologists and antiquaries to pronounce; but this much many now present well know, that even the art of cast-

ing well-executed bronze statues can be traced back to a most remote period. The Chinese, Japanese, and other Eastern nations, ascribe to their antique statues and statuettes an existence of a great many thousands of years before the Christian era; whilst the Greeks of Samos had brought the same art to considerable perfection 700 years before Christ. It is pretty certain that China derived her tin from, or through, the Straits of Malacca before the Phœnicians even left their native country to settle on the shores of the Mediterranean. And this brings us to the second question: "Who were these Phœnicians, and from what country did they originally come?"

The answer to this may not be so readily accepted as the last, but it is nevertheless quite as true, although perhaps somewhat startling. "The Phœnicians, or Phainicas, or the Hiyas, were emigrants of a Buddhist or Serpent tribe (Oph-gana or Aph-gana) from a district named Brini Badam, in Afghanistan, in Northern India; who, settling on the Mediterranean, built a town and named it Sid-an or Sid-on, after Saidan (the Saints' city), one of the principal towns in their native district of Brini."

These enterprising and most energetic Buddhist traders carried on a large internal commerce, extending from Cashmere into China, Tibet, and North-western India, to the East; and to Persia, Khiva, Bokara, and Kokan, to the West and North; whilst, starting from their ports on the Gulf of Arabia, they had for many centuries commercial intercourse with the coasts of Malabar, Ceylon, Bengal, &c. on the one hand, and with those of Persia, Arabia, and Africa on the other hand.

The Red Sea had been a long frequented and familiar high road for their eager mariners during a great period of time antecedent to their actually establishing Colonies on the coasts of Syria. Having once obtained a firm footing on the Mediterranean shores, they gradually spread themselves all over Greece, the islands of the Archipelago, Northern Africa, &c. and extended their commerce to Spain, France, Britain, and Ireland.

The metal tin, as a matter of course, formed but one item amongst the many articles in which they traded; but to show how important this single item of their trade from India on the one hand, and Portugal, Spain, and Britain on the other, was, I need only point to the vast quantities of it which were used in the manufacture of bronze (or brass, as it was frequently termed), and notably so in making bronze statues. We are told that enormous bronze colossuses were made, to the gigantic height of towers, of which the Island of Rhodes possessed no less than one hundred,

and that the Roman Consul Mutianus found 3,000 bronze statues at Athens, 3,000 at Rhodes, as many at Olympia and at Delphi, although a great number had been previously carried off from the latter city.

Time does not permit of my saying more on these most interesting points; I will therefore pass to the final branch of my subject, viz. the national questions affecting our position in the Straits of Malacca. I wish to treat these great questions in a purely national sense, and quite apart from party politics, inasmuch as they are of such high import as to move the heart of every British subject.

It can be readily imagined that this branch of my subject relates especially to the security of our possessions and of our trade, through the Straits of Malacca, with China and Japan, and the Eastern Archipelago generally.

I have already stated that the Dutch had acquired by degrees several very important positions on the great island of Sumatra; but as they never could obtain possession of Acheen, it could in no way be alleged that they owned Sumatra.

From the reign of James I. friendly relations were established between Great Britain and the Sultan of Acheen, and this friendship has, with very slight breaks, been ever since maintained.

The Acheenese, cordially hating, and with good reason fearing, both the Portuguese and the Dutch, threw themselves in a manner upon their friends and protectors the English, and whatever bickerings may have arisen between them, they clung with pertinacious tenacity to their powerful and only friends.

At length a solemn treaty was concluded in 1819 between them, whereby England deliberately engaged and covenanted to defend and protect Acheen (*vide* Article 1).

In 1824 England ceded her Settlements in Sumatra to the Dutch in exchange for Malacca, reserving, however, the independence of Acheen, which reservation was well understood by the Dutch to mean, "Thus far shalt thou go, but no farther," and, in consequence, they never ventured upon any attempt to interfere with this State.

But whilst comprehending to the full the nature of this prohibition, the Dutch have never ceased to view it with the utmost dislike, and have made many attempts to get it removed.

In 1868, they tried by a side wind to obtain its virtual relaxation, whilst getting the recognition by the British Government of all the territorial acquisitions made by them up to that date (which acquisitions were accomplished facts); but, as Lord Derby truly

declares, all mention of Acheen was purposely excluded, and its status remained unaltered until 1871.

In that year, when a mighty European war was raging; ay, at the very time that certain continental journals were advocating, if not absolutely threatening, the annexation of Holland and her possessions, by a great military neighbour; yes, at that very time the late Ministry of England thought proper to conclude "the Sumatra Convention;" whereby the Dutch gave up to Great Britain the fort of Elmina, on the Gold Coast, in exchange for which England is supposed to have withdrawn her protectorate over Acheen! In other words, England gives over to the tender mercies of the Dutch, that people whom we have by solemn treaty bound ourselves to protect and defend;—that country, which actually may be considered to be the key to our Settlements in the Straits of Malacca, and to that great thoroughfare of our trade with China and Japan! And for what? What equivalent have we received for this great national sacrifice? Why, that worse than useless, that wretchedly contemptible little fort, Elmina,—a place of which few had ever heard, which can never be of any use, and which we certainly did not want.

Now what is the present result of this deplorable bargain? What are the fruits borne by this most compromising treaty?

The fruits are more bitter than those of the Dead Sea: both to us, to the Acheenese, and likewise to the Dutch themselves.

Our country has been plunged into a most ignominious war with a set of blood-defiled savages; some of our best troops, our noblest soldiers, have been sacrificed in that fever-stricken country; our treasure has been poured out like water; and, worse than all, the good faith of the British nation has been treated as a thing not to be depended upon.

To the Acheenese the fruit has been, that her country, without any just cause, without any sufficient provocation has been twice invaded; her coasts blockaded; her towns, forts, and villages have been bombarded, assaulted, and captured; her inhabitants have been recklessly and cruelly slaughtered; and a third invasion in the ensuing autumn is now threatened.

To the Dutch, who are the *ostensible* authors of all this evil, the fruit has, contrary to their anticipations, been indeed bitter and humiliating in the extreme.

Her many fine ships of war, her numerous soldiers, her heavy expenditure—all have been employed in vain.

Her armies have fought night and day, her cannon have rained a storm of iron upon the enemy; but, decimated by the Acheenese

swords and by climatic diseases, threatened at all points by those whom they had come to subjugate or destroy; they have shrunk back, foiled and disheartened, and betaken themselves now to their entrenchments, in the hope that they may be able to hold out until a fresh expedition can arrive.

A very serious question now arises which, to my mind, has been well and properly argued and decisively answered by a writer in the *Times*, who says: "I submit this Convention of 1871 could not release, and has not released, England from her obligation, under the Treaty of 1819, to defend Acheen; and it is a flagrant violation of public faith to refuse to fulfil that obligation." This is the view which, I venture to think, nine-tenths of the whole country will take of it, so soon as the actual facts become generally known.

If this be the case, it remains to be seen whether this miserable Convention cannot be amicably withdrawn, and all this horrible blood-shedding be put a stop to.

Let this country face the difficulty in a manner becoming a great nation. Let us mediate, and obtain the immediate withdrawal of the Dutch troops from Acheen; making, on the one hand, to Acheen a compensation for our great default, and, on the other hand, returning to the Dutch the Fort of Elmina, and such conquests as we made (if any) during our defensive war with Ashantee. And, lastly, let it be clearly understood by all whom it may concern, that England cannot and will not persist in breaking faith with Acheen; but that the Treaty of 1819, which the "Convention" could not set aside, is still, and will remain, in full force.

If the deplorable events which have arisen out of this inexplicable act of the late Ministry should, as I hope they will, lead to the passing of a legislative enactment, whereby no Ministers (whether Radical or Tory) shall have the power to alienate any of the territorial possessions or annul any of the protectorates of Britain without first obtaining the consent of Parliament, then, perhaps, some good may come out of this evil, and the name of our beloved England may still for many generations be upheld, unsullied before the world and free from all reproach.

No one having risen to offer any observation on the subject of the Paper,

The CHAIRMAN said he presumed no one was disposed to discuss the Paper, because Mr. Wray had so thoroughly exhausted the subject that no one felt competent to add anything to what he had so graphically described. The only remark which he wished to offer was with regard to the importance of a measure which he and others

had for some time advocated, viz. that a body of men should be constituted, possessed of more or less authority, but with more knowledge of the circumstances of the British Empire than usually fell to the lot of British statesmen, who should be consulted, and whose consent should be necessary to any measures of such a character as had been recently carried out, consequent on negotiations with Holland concerning the Straits of Malacca and the settlements on the West Coast of Africa. That seemed a trifling matter at the time. No one took any notice of it, and even now many statesmen and journalists, as well as the general public, seemed almost totally ignorant of the real facts of the case. Such ignorance could only be obviated in future by consultation with persons acquainted with the various matters as they might arise. This seemed to him an additional argument for the appointment of a council representing all parts of the British Empire, who should be at least the authority for advice, if nothing more, in the dealings of Parliament and of the Government with the magnificent Empire with which unfortunately we are so inadequately acquainted. With this simple remark, he begged to propose a cordial vote of thanks to Mr. Wray for the immense amount of information he had collected with reference to the Straits Settlements, and for the admirable manner in which he had presented it to the meeting.

Mr. CAMPBELL JOHNSTON, in seconding the vote of thanks, said it had been his good fortune to have visited the parts of the world referred to by Mr. Wray, and he could fully corroborate everything which he had said. He might also remind him of the circumstances which led to the occupation of these Straits Settlements, Malacca, and others. It arose out of the particular circumstances of a diplomatic character, when England took Java from the French, and afterwards gave it back to the Dutch. Sir Stamford Raffles, who thoroughly knew the character of the Dutch—their jealousy of other's commerce and desire to monopolise, and that as soon as the island was given up to them they would endeavour to restrict the commerce of all other nations in that Archipelago—suggested that England should take Singapore and make it a free port. His suggestion was not received with any great amount of enthusiasm; but he knew full well that if it were made a free port the Dutch could not close the Archipelago in the way their narrow-minded instincts would lead them to desire. Singapore was little better than a sand-bank, but he chose it as being, from its position, best calculated to promote the objects he had in view, because it commanded the exit from the Straits towards China and Japan. But it was necessary also to have some protection at the other end

—the entrance—and for this purpose it was essential to keep on amicable terms with the Atcheenese. Hence the treaties, which had of late been—he supposed he must say—forgotten : certainly they had been entirely overlooked. He was glad to hear the suggestion made by the Chairman that some body should be constituted, competent to judge of such matters, so as to restrain the blindfold ignorance which oftentimes casts away without reflection that which it has cost years of effort to build up. The Colonies in that district were of the most productive character, and if they had a population—which was at present denied them—might become a centre of production both of agricultural and mineral wealth beyond anything which had yet been seen in that region.

The vote of thanks having been unanimously passed, Mr. L. WRAY briefly acknowledged the compliment, and the proceedings terminated.

AN Ordinary General Meeting of the Institute was held at the Pall Mall Restaurant, on Wednesday, the 15th April, His Grace the Duke of MANCHESTER, President, in the chair.

An address of congratulation to H.R.H. the Duke of Edinburgh on his marriage, and His Royal Highness's gracious reply thereto were read.

Mr. WILLIAM WALKER read the following paper on

THE FORESTS OF BRITISH GUIANA.

In the volume of the proceedings of the Royal Colonial Institute for 1872-3, will be found two papers on the Forests of Tasmania. The subject therein treated of excited so much interest that our esteemed Honorary Secretary suggested the desirableness of its being followed up by similar reports relative to other Colonies. This paper is an attempt to supply some information in respect to the forest wealth of British Guiana: but I wish it to be distinctly understood that it is, in the literal sense of the word, only a compilation, without the least pretension to originality; my aim being solely to reproduce, in a connected and compact form, the available information recorded by writers of established authority and reputation.

Guiana is that large tract on the north-eastern extremity of South America, lying between 8°40 N. lat. and 3°30 S. lat., and between the 50th and 68th degrees of W. long.; its greatest length between Cape North and the confluence of the Rio Xie with the Rio Negro is 1,090 geographical miles, and its greatest breadth between Punta Barima at the mouth of the Orinoco, to the confluence of the Rio Negro with the Amazon, 710 geographical miles.

In order to give an idea of the geological character of the whole territory known as Guiana, so as to afford a key to the character of its botanical productions, I cannot do better than quote a passage from Mr. Wallace's Travels on the Amazon and the Rio Negro.* He says:—"The general impression produced by the examination of the country is, that here we see the last stage of a process that has been going on during the whole period of the elevation of the Andes and the mountains of Brazil and Guiana from the ocean. At the commencement of this period, the greater portion of the valleys of the Amazon, Orinoco, and La Plata, must have formed a part of the ocean separating the groups of islands (which those elevated lands formed on their first appearance) from each other. The sediment carried down into this sea by the rapid streams running down the sides of these mountains would tend to fill up and level the deeper and more irregular depressions, forming those large

tracts of alluvial deposits we now find in the midst of the granite districts. At the same time volcanic forces were in operation, as shown by the isolated granite peaks which in many places rise out of the flat forest district, like islands from a sea of verdure, because their lower slopes and the valleys between them have been covered and filled up by the sedimentary deposits. This simultaneous action of the aqueous and volcanic forces, of submarine earthquakes and marine currents, shaking up, as it were, and levelling the mass of sedimentary matter brought down from the now increasing surface of dry land, is what has produced that marvellous regularity of surface, that gradual and imperceptible slope, which exists over such an immense area.

“At the point where the mountains of Guiana approach nearest to the chain of the Andes, the volcanic action appears to have been continued in the interval between them, throwing up the Sierras of Curicuriari, Tunuhy, and the numerous smaller granite mountains of the Uaupés; and it is here probably that dry land first appeared, connecting Guiana and New Granada, and forming that slightly elevated ridge which is now the watershed between the basins of the Amazon and Orinoco. The same thing occurs in the southern part of the continent, for it is where the mountains of Brazil and the eastern range of the Bolivian Andes stretch out to meet each other that the sedimentary deposits in that part appear to have been first raised above the water, and thus to have determined the limits of the basin of the Amazon on the south. The Amazon valley would then have formed a great inland gulf or sea about two thousand miles long and seven or eight hundred wide. The rivers and mountain torrents pouring into it on every side would gradually fill up this great basin; and the volcanic action still visible in the scoræ of the Tocantins and Tapajoz and the shattered rocks of Montealegre would all tend to the levelling of the vast area, and to determining the channels of the future rivers. This process, continuing for ages, would at length narrow this inland sea, almost within the limits of what is now *gapó*, or flooded land. Ridges, gradually elevated a few feet above the waters, would separate the tributary streams, and then the eddies and currents would throw up sand-banks, as they do now, and gradually define the limits of the river as we now see it. And changes are yet going on: new islands are yearly forming in the stream, large tracts of flooded land are being perceptibly raised by the deposits upon them, and the numerous great lakes are becoming choked with aquatic plants, and filled up with sediment.

“The complete history of these changes,—the periods of eleva-

tion and of repose, the time when the dividing ridges first rose above the waters, and the comparative antiquity of the tributary streams,—cannot be ascertained till the country has been more thoroughly explored, and the organic remains, which must doubtless exist, be brought forward to give us more accurate information respecting the birth and growth of the Amazon.”

Mr. Wallace’s explorations embraced the period 1848 to 1852, and I am not aware of any subsequent inquiries of a scientific character having been attempted until the recent geological survey of British Guiana by Mr. Sawkins and Mr. Brown, which, however, owing to circumstances beyond the control of those gentlemen, cannot be regarded as of a complete or exhaustive character; but it confirms the remarkable statement of Mr. Wallace, that he was never able to find any fossil remains whatever, not even a shell, or a fragment of fossil wood, or anything which could lead to a conjecture as to the state in which the valley existed at any former period, and thus that he was unable to assign the geological age to which any of the various beds of rock belong. Granite, he observes, seems to be here more extensively developed than in any other part of the world; over the whole of Venezuela and New Granada it was found by Humboldt; it seems to form all the mountains in the interior of Guiana, and was met with by Mr. Wallace himself over the whole of the upper part of the Rio Negro, and far up the Uaupés towards the Andes. On the alluvial deposits above-mentioned grow the lofty virgin forests,* while on the scantily covered granite rocks, and where beds of sand occur, are the open *catanga* forests, so different in their aspect and peculiar in their vegetation.

The banks and lowlands adjacent to the rivers of British Guiana consist of a blue clay impregnated with marine salt, mixed with decayed vegetable matter, which, in its decomposed state, forms a

* The scene is a boundless forest district, which in the torrid zone of South America, connects the river basins of the Orinoco and the Amazon. “This region,” says Humboldt, “deserves, in the strictest sense of the term, to be called a primeval forest—a term that in recent times has been so frequently misapplied. Primeval (or primitive) as applied to a forest, a nation, or a period of time, is a word of rather indefinite signification, and generally of but relative import. If every wild forest densely covered with trees on which man has never laid his destroying hand is to be regarded as a primitive forest, then the phenomenon is common to many parts both of the temperate and the frigid zones. If, however, this character consists in its impenetrability, through which it is impossible to clear with the axe between trees measuring from eight to twelve feet in diameter a path of any length, primitive forests belong exclusively to tropical regions. This impenetrability is by no means, as is often supposed in Europe, always occasioned by the interlaced climbing leaves or creeping plants, for these often constitute but a very small portion of the underwood. The chief obstacles are the shrub-like plants, which fill up every space between the trees in a zone where all vegetable forms have a tendency to become arborescent.”—*Humboldt’s “Views of Nature.”*

rich and highly productive mould. This alluvial flat is terminated by a range of sand hills traversing the whole Colony, at varying distances from the seashore. In lat. 5° N. a chain of mountains occurs, consisting of granite, gneiss and trappean rocks, connected with the mountains of the Orinoco by the Sierra Ussipama. This chain may be considered the central ridge of the Colony, and Sir Robert Schomburgk, to whose labours I am largely indebted for the materials of this paper, is inclined to consider it the old boundary of the Atlantic.

A peculiar feature of the Colony are the Savannahs, lying between the Demerara and the Corentyn, and in the direction of the last-named river approaching the seashore. The winding courses of the rivers are generally indicated by fringes of trees; but with the exception of these and some occasional clumps of trees rising like green islands in a desert, the Savannahs are covered only with grass and stunted scrub.*

The general character of the country is, however, that of vigorous and luxuriant vegetation; a constant summer prevails, and the fertility of the soil, the humidity of the atmosphere, and the congenial temperature, produce results which to one accustomed only to the alternations of the northern regions, are suggestive of astonishment and admiration. It appears as if the power and strength of productive nature, in recoiling from the poles, had concentrated itself near the equator, and spread its gifts in that neighbourhood with open hand, to render its aspect more majestic and imposing, and to display the fecundity of the soil. Gigantic trees raise their lofty crowns to a height unknown in the forests of Europe, and exhibit the greatest contrasts in the forms and appearance of their foliage. Viewed from an elevation, their summits form an almost uniform level surface for miles together. The dense and almost impenetrable forests of the interior offer inexhaustible treasures, not only for architecture in all its branches, but likewise for the manufacture of furniture and many other purposes.

The fitness of the timbers for naval architecture is remarkable :

* "These regions of sandstone have their own Flora. Every shrub was almost new to me; except some *Melastoma*, very few were in flower. If it were possible to transplant a botanist among these bushes without his being aware to which part of the world he had been conducted, the rigid leaves and tortuous branches would cause him to fancy himself in New Holland among the *Melaleuca* and *Protea*. The most attractive was a shrub with rigid leaves and a rose-coloured flower, like a simple *Camellia*, until a nearer inspection proved it to be a *Kielmeyria*. Interesting as this shrub was, it could not vie with an *Orchidea*, doubtless the tallest yet described, and which, for the gracefulness of its stem, the splendid configuration of its flowers, and its aromatic smell, is perhaps not equalled among this more singular and most fragrant kind of plants."—Schomb., *Journey from San Joaquin to Rosaina*.

some kinds even compete with the teak. The Greenheart, the Mora, and the Souari, are, of all the woods, best adapted for ship-building purposes and for submarine constructions. When the Brown Greenheart was first sent to Liverpool and Greenock, it was pronounced by competent persons, after an experience of ten years, superior to oak for strength and durability, and it commanded a preferential price. Colonel Moody, of the Royal Engineers, records that the black Greenheart and the Purpleheart were the only woods that stood the test as mortar-beds at the siege of Fort Bourbon, in the Island of Martinique.

In the first great International Exhibition of 1851, the woods furnished from Guiana were described by the late Sir William Hooker as a "marvellous collection," and he added, in his valuable report on that of 1855 at Paris, that the Colony had done itself great honour by not only increasing the number of samples, but by accompanying it with a *catalogue raisonné*, in which the names were given so far as could be accurately ascertained, with excellent observations on their properties and uses.

The report of the late Sir William Holmes, the Commissioner representing the Colony at the London International Exhibition of 1862, mentions that about 130 varieties of timber were contributed on that occasion; and he adds some very sensible remarks upon the subject of the obstacles to be encountered in any attempt to introduce exotic novelties into use amongst the manufacturers and artisans of Europe. He points out that no material is so difficult to bring into general use as new varieties of timber, seeing that the stability and durability of the constructions for which it is used are dependent upon the quality employed; architects therefore naturally hesitate to use untried sorts whilst an adequate supply of well-known timber is to be had. Indian teak commands the market, as it is lighter and more easily worked than the hard woods of Guiana,* and moreover contains an essential oil, which

* By way of illustrating this quality of our timber trees, and at the same time furnishing a hint to our hardware manufacturers, I extract the subjoined notes from Schomburgk's journals:—

"The Mora, covered with a succession of leaves whose tints, varying with their age, passed from yellow through red to dark green, is one of the hardest trees in Guiana, and seems to increase in hardness by being immersed in water."

"We have found the iron-wood tree and a new species of *Dipteria*, the flower of which has a sweet perfume resembling violets; it is called by the Indians Itikieri Buri-balli: the wood is speckled like a tiger's skin: it is sometimes sold in the Colony at 5s. 9d. per foot. At the first trial which our axes made on the iron-wood, a tree lying across the river, they rebounded. After a few blows the axe almost resembled a saw, and had we not possessed some American axes we should have been obliged to drag the corials overland. A traveller through the forests of the interior should consider an American axe an indispensable tool. A dozen other axes, of the best European manufacture, will not

contributes to the preservation of ironwork. Greenheart, however, ranks next to teak; and in 1861 nearly a million cubic feet were shipped to the English market. Some interesting experiments were made by the London and North Western Railway Company as to the suitability of this wood for railway purposes generally, and these led to some large contracts being entered into for the supply of the timber. At Lloyd's, again, Greenheart and Mora are classed amongst the seven or eight only woods from all parts of the world recognised as A1 for shipbuilding purposes. Many other woods would no doubt be found upon trial equally useful, but local reputation is of little avail in such matters; the collection as a whole was much admired, especially such varieties as appeared suitable for furniture. Here again, however, tyrant custom asserts its sway, and cabinet-makers are so accustomed to mahogany, rosewood, walnut, birch, and a few others, that they are reluctant to introduce any new variety except under special circumstances.

It may be asserted without reservation that, as regards timber and furniture woods, the natural productions of Guiana vie with those of any part of the world. Extensive tracts of primitive forests are yet untouched, especially beyond the rapids, and away from the banks of the rivers and creeks, where there is increasing difficulty in bringing the timber to the water's side. The demand for our timber had largely increased subsequently to the first great International Exhibition of 1851, where two prizes were awarded to them; but the greatest expansion of the trade occurred, as above mentioned, in 1861, when the exports amounted to 825,230 cubic feet.*

Subjoined is a table of the specific gravities of fifty-nine speci

prove equal to a good American felling axe. Two such axes which were used during an expedition lasting four years were, at the end of that time, as serviceable as at the commencement."

* The exports of timber in each year from and including 1851 were as under :

					Cubic feet.
1851..	..	..	..	..	177,780
1852..	..	..	..	..	127,356
1853..	..	..	..	..	144,031
1854..	..	..	..	..	206,962
1855..	..	..	..	..	173,914
1856..	..	..	..	..	297,354
1857..	..	..	..	..	330,772
1858..	..	..	..	..	257,508
1859..	..	..	..	..	276,378
1860..	..	..	..	..	493,922
1861..	..	..	..	..	825,230
1862..	..	..	..	..	652,112

From 1862 the exports will be found in Appendix I.

mens of our woods prepared by Mr. J. F. Bourne, then Colonial Civil Engineer, for the International Exhibition of 1862, to which are added, for the sake of comparison, those of a few European woods; and this will be conveniently supplemented by introducing also the results of the tests supplied by the late Capt. Fowke, R.E., to ascertain the comparative values, for the purposes of construction, of some of the specimens of forest timbers supplied by British Guiana to the Paris Exhibition of 1855.

TABLE OF SPECIFIC GRAVITIES OF
BRITISH GUIANA TIMBER.

No.	Name.	Specific Gravity.	No.	Name.	Specific Gravity.
1	Letterwood	1·333	30	Bartaballi	·893
	<i>Same Specific gravity as Lignum Vitæ: Dutch Box</i>		31	Houbaballi.....	·890
	1·328.		32	Kirica	·889
2	Tibicusi	1·325	33	Tryssil	·888
3	Banya	1·280	34	Fustic	·884
4	Greenheart, black..	1·210	35	Sunwood.....	·863
	<i>Heart of Oak</i> 1·170			<i>Beech</i> ·852.	
5	Washiba.....	1·162		<i>Ash</i> ·845.	
6	Cabacalli	1·154	36	Locust, white.....	·838
7	Ducalaballi	1·138	37	Itikiri Buraballi ..	·836
8	Hackia	1·132	38	Suradani.....	·836
9	Moraballi	1·128	39	Hyraballi, brown ..	·836
10	Eleeteweira	1·122	40	Purpleheart	·827
11	Wamara.....	1·122	41	Wild Cashew.....	·812
	<i>Ebony</i> 1·117		42	Mammee.....	·809
12	Tooroo	1·110		<i>Alder</i> ·800.	
13	Contaballi	1·087	43	Coffee	·783
14	Couraballi	1·082	44	Lancewood.....	·782
15	Sibbadani	1·066	45	Cherry	·767
16	Silbadani	1·066		<i>Maple</i> ·755.	
17	Awrasurali.....	1·058	46	Duca	·746
18	Hyawaballi	1·032	47	Euraballi	·744
	<i>Red Brazil Wood</i>		48	Yellow Sanders	·734
	1·031.		49	Arumata.....	·727
19	Mora	1·029	50	Arawadani	·724
20	Cururuburari.....	1·021	51	Lime	·706
21	Baramali	1·007	52	Guava	·682
	<i>WATER</i> 1·000.		53	Arracudocu	·678
22	Hicka	·994		<i>Walnut and Elm,</i>	
23	Logwood	·982		·671.	
24	Touranero	·967	54	Crabwood	·667
25	Greenheart, yellow..	·951	55	Douru	·652
26	Wallaba	·945	56	Silverballi, yellow..	·610
27	Locust, red.....	·942	57	Courucuralli	·692
28	Souari	·932		<i>Willow</i> ·585.	
	<i>Dry Oak</i> ·925.		58	Silverballi, grey....	·564
29	Culiseri	·923		<i>Fir</i> ·498 to ·550.	
			59	Silverballi, pale....	·483
				<i>Corkwood</i> ·240.	

NOTE BY MR. BOURNE.—“The specific gravities can of course be only approximations; so much depends whether the wood be green or well-cured, or whether the specimen be cut from the heart or near the sap. These specimens are well cured; but some are very much older than others.

“All the specimens classified above the word ‘water’ on the list should sink; but I have seen well-cured Mora float. And all the specimens following the word ‘water’ on the list, should float; but I have seen Yellow Greenheart and Wallaba, when first brought to town by the wood-cutters, almost invariably sink.”

The first of the experiments above alluded to as being conducted by Captain Fowke, was to ascertain the breaking weight, the specimen being supported at the extremities, and the strain being applied at right angles midway between the points of support. The other experiments were directed to ascertain the power of the woods to bear a crushing strain, applied both in the direction of the grain (1), and also in a transverse direction (2), forming two distinct series of experiments, of which the testimony, as indicating the valuable qualities of the Guiana woods, must be considered highly satisfactory. It has been suggested by one of the most intelligent and experienced wood-cutters in the Colony, that it would be very desirable to have the series of experiments above alluded to renewed; and that the Purple-heart (*Copaifera pubiflora*) might, amongst others, probably be found well adapted for the inner lining or skin of armour-plated ships.

TABLE SHOWING RESULTS OF EXPERIMENTS.

Name of Specimen.	Size of Specimen.	Breaking Weight.	Crushing Weight.*	Crushing Weight.†	Amount Yielded.
			1.	2.	
Cabacalli..	1ft. 2½ in. × 2in. sq.	7163·0lbs.	9920·7lbs.	8818·4lbs.	0·45
Mora	1 „ 2 „ „	9697·6 „	9920·7 „	8818·4 „	0·50
Houbaballi	1 „ 2 „ „	4518·2 „	5411·5 „	8818·4 „	0·60
Wadaduri..	1 „ 2 „ „	10689·4 „	12125·3 „	8818·4 „	0·62
Purple-heart ..	1 „ 2 „ „	6391·0 „	9920·7 „	8818·4 „	0·56
Wamara ..	1 „ 2 „ „	12122·0 „	12566·2 „	8818·4 „	0·55
Sipiri, or Greenheart (yellow).	0 „ 11½ „ „	14528·0 „	12125·3 „	6613·8 „	0·11
Do. black..	0 „ 11½ „ „	13224·0 „	15432·2 „	8818·4 „	0·51
Cuamara, or Tonka ..	1 „ 2 „ „	10469·0 „	11463·9 „	8818·4 „	0·34
Ducalaballi	1 „ 2 „ „	9367·0 „	13227·6 „	8818·4 „	0·57
Wallaba ..	1 „ 5 „ „	5510·0 „	6613·8 „	3306·9 „	0·49
Silverballi (yellow)..	1 „ 5 „ „	4297·8 „	7716·1 „	8818·4 „	0·32
Carapa	1 „ 5 „ „	5510·0 „	8818·4 „	8818·4 „	0·54
Simiri	1 „ 1½ „ „	6171·2 „	8818·4 „	8818·4 „	0·60

* Transverse strain.

† Direct strain.

In the late Dr. Dalton's History of British Guiana he gives an alphabetical List of Hardwood and other useful indigenous timber trees, from which I extract a few items:—

	Height in Feet.	Girth in Inches.	
Acuyari (<i>Icica Altissima</i>)	50 to 60	80 to 120	Wood used for canoes, &c.
Bartaballi	30 „ 50	30 „ 40	Tough, strong, resembles ash; excellent for masts of small craft, yards and top-masts of larger.
Bisi	50 „ 60	.. ..	Grows to a great size; wood very durable; yields a green resin useful for varnish.
Bully or Bullet Tree* (<i>Mimusops</i> ?)	30 „ 60	36 „ 60	Excellent for houseframes, plank, mill timber—squares 20 to 30 inches.
Cabacalli.....	30 „ 40	36 „ 48	Two kinds, red and white. Red, good furniture wood; resists the <i>teredo</i> for years. White, inferior.
Canuballi	40 „ 50	36 „ 40	Tall and straight like birch.
Curana (Cedar).....	50 „ 60	80 „ 120	Useful for boards and planks.
Couriaballi.....	40 „ 50	36 „ 40	Better than American white pine for boards and planks.
Coutaballi	30 „ 40	.. ..	Squares 12 inches; hard and durable under cover.
Cuamara.....	50 „ 60	72 „ 90	Well adapted for mill wheels, shafts, or cogs.
Coraba.....	30 „ 40	30 „ 60	Squares 14 to 16 inches; takes a high polish; useful for house frames and boarding; yields a valuable oil.
Ducalaballi	30 „ 50	30 „ 40	Tough, strong; useful for masts and spars.
Determa.....	30 „ 60	.. ..	Excellent for masts and spars, beams and planks.
Sipiri (Greenheart) ..	40 „ 80	36 „ 70	Three kinds; black, brown, yellow; the black is the best. Squares from 18 to 24 inches; a cubic foot weighs 75 lbs. Lengths of 60 to 70 feet can be obtained without a knot.

* The Indians, between the 4th and 5th deg. of lat., generally use the Bullet-tree (*Mimusops* sp.) for canoes, but as this useful and magnificent tree does not grow here, we had to use two other trees, one apparently allied to the locust (*Hymenæa Courbaril*), and the other the balsam capaiva tree. In felling one tree, when they came near the heart, the balsam gushed out in such quantity that several gallons might have been collected. Some of these trees must attain an enormous size, as a single one gave us two bark canoes, each 35 feet long and 4 ft. 5 in. wide; one tree measured 125 feet from the base to the top of the branches.—Schomb., *R.G.S. Journ.* vol. xv. p. 56: *Journey from Watu Ticaba.*

	Height in Feet.	Girth in Inches.	
Houbaballi.....	20 to 40	36 to 70	A beautiful wood; light red with black and brown streaks. Easily worked; takes a high polish; much used in the Colony for furniture.
Hyawaballi	40 ,, 60	.. ..	Incense tree; wood sound and buoyant.
Itikiri Buraballi (<i>Ma- chærium Schomburghii</i>)	30 ,, 40	18 ,, 50	A rich brown colour; spotted black and brown like a tiger's skin. Squares, 12 to 16 inches.
Kakaralli	30 ,, 40	24 ,, 30	Brown and white; used for stallings and bridges, resisting barnacles.
Kurara	40 ,, 50	24 ,, 30	Crooked beams and planks.
Lana	40 ,, 50	36 ,, 40	Corresponds to American white pine; close grained; not liable to split; yields a valuable dye.
Letterwood, or Brazil Wood	30 ,, 40	36 ,, 40	Centre part yields the letterwood; a beautiful furniture wood.
Locust (Simiri).....	40 ,, 100	36 ,, 100	Heavy and compact; fine brown, streaked with veins; easily worked; yields a fine resin like gum copal; bark makes canoes.
Mama	50 ,, 60	30 ,, 36	Useful for staves and frames.
Mora	50 ,, 120	20 ,, 90	Resembles English oak; tough, close-grained, and durable; red, white, brown; squares 18 to 20 inches.
Pacuri.....	50 ,, 60	45 ,, 70	Sound and durable; useful for flooring or planks.
Purpleheart(Courbaril)	30 ,, 70	36 ,, 60	Possesses great strength and elasticity; used for house frames, mills, and stallings.
Silverballi	30 ,, 70	20 ,, 60	Black, brown, yellow, white; squares, 10 to 14 in.; black resembles ebony.
Suradanni	30 ,, 40	36 ,, 82	Used for ship timbers.
Tataba	40 ,, 60	36 ,, 100	Resembles teak.
Tooroo Palm	50 ,, 60	.. ..	Used for walking-sticks, billiard cues, &c.
Turiballi.....	.. ..	.. ..	A large tree; the wood impervious to insects.
Wallaba	40 ,, 50	42 ,, 82	Hard, durable; of a red colour; splits freely; contains an oleaginous resin.
Wamara	50 ,, 60	.. ..	Brown ebony; wood hard and close-grained; used by the Indians for war-clubs.
Washeba	50 ,, 60	36 ,, 90	Hard and durable; is suitable for mill timber; used by the Indians for bows.

	Height in Feet.	Girth in Inches.	
Yaruri	50 to 60	36 to 48	Yellow and white; the former resembles beech. Indians use the fluted projections of the trunk for paddles.

It is right to explain that of the timber trees of British Guiana but a very small proportion has been botanically classed with certainty. Sir William Hooker furnished this note upon the series of specimens contributed to the International Exhibition of 1862, and which are now to be seen in the Museum at the Royal Gardens, Kew:—

Coutaballi .. ..	.. ..	<i>Theobroma</i> sp. ?
Touranero .. ..	.. ..	<i>Humirium floribundum</i> (Mart.)
Souari .. ..	.. ..	<i>Carycear tomentosum</i> (Dec.)
		<i>Pekea tuberculosa</i> (Aubl.)
Crabwood .. ..	.. ..	<i>Carapa Guianensis</i> (Aubl.)
Cuamara .. ..	.. ..	<i>Dipteryx odorata</i> (Willd.)
Wamara .. ..	.. ..	<i>Swartzia</i> sp.
Simiri .. ..	.. ..	<i>Hymenæa Courbaril</i> (Liner.)
Tryssil .. ..	.. ..	<i>Pentaclethra filamentosa</i> (Benth.)
Ubudi .. ..	.. ..	<i>Anacardium rhinocarpus</i> (Dec.)
Itaballi .. ..	.. ..	<i>Vochysia tetraphylla</i> (Aubl.)
Wadaduri .. ..	.. ..	<i>Lecythis grandiflora</i> (Aubl.)
Yarura .. ..	.. ..	<i>Aspidosperma excelsum</i> (Benth.)
Maniballi .. ..	.. ..	Apocynaceæ (?)
Silverballi .. ..	.. ..	<i>Ocotea</i> (sp. ?)
Sipiri, or Bibiru .. ..	.. ..	<i>Nectandra Rodicæi</i> (Schomb.)
Silverballi, yellow .. ..	.. ..	<i>Nectandra</i> , or <i>Oreodaphne</i> (sp. ?)
Basrya .. ..	.. ..	<i>Swartzia</i> (?) *

I proceed to say a few words upon the system on which the forests of British Guiana have been worked.

The first step in wood-cutting is to obtain a grant, usually of three hundred acres, which is rented at ninety dollars per annum.

The preliminary expenses are—

Survey and making two diagrams	\$10 00
Distance money to surveyor	25 00
Report on petition	12 00
Making out and recording license	24 00
Superintendent of Rivers and Creeks	15 00
	<hr/>
	\$ 86 00
Add annual rent	90 00
	<hr/>
Cost for first year's occupancy	\$176 00

* In his Report on the woods of British Guiana exhibited at the Paris Exhibition of 1855, Sir William Hooker mentioned a specimen of "Cartan" from the Demerara River, as a very rare wood, and of a beautiful rich orange colour. It was conjectured to be the produce of a tree described by Schomburgk, and probably the *Centrolobium robustum*, of Martius. The height, 80 to 100 feet, the beautiful red colour of the wood, and the facility with which it is worked, promised to render it of great importance for cabinet-makers. I have been unable to find any similar specimen noted in the catalogues of subsequent Exhibitions, nor do I remember to have myself seen any other sample than the one above mentioned.—W.

Cutting and squaring 1,000 ft. @ 50 c. for 25 ft.	\$20 00
Hauling, say 30 hands @ 50 c. each, 200 ft. per day	75 00
Loading punt, 15 hands @ 50 c. each per day, two days....	15 00
Hire of punt, one trip to town	25 00
„ „ „ hands ditto	25 00
Cost of bringing to market	\$160 00
Ordinary price of timber in New Amsterdam 32 c. per cubic ft.	320 00
Difference brought down to cover preliminary expenses, rent and profit to the grantee for the first year	160 00

In addition to money wages, wood-cutters are provisioned by the employer.

This is nominally a good profit, but it must be remembered that the grantees, as a general rule, have to become debtors to the merchants and traders in town, for the supplies necessary for their labourers until the timber is sold, and such advances with interest at 8, 10, or even more per cent., and the high prices charged for the supplies, render it extremely difficult for grantees to accumulate wealth from such a pursuit. Moreover, the merchants buy the timber to be delivered at some future date, and at a rate perhaps considerably below what the market price may be at the time of delivery. Few of the wood-cutters in the locality to which the preceding tables apply, namely, in the county of Berbice, cut more than about 5,000 feet in the season; in other parts of the Colony men cut perhaps 50,000 feet in the like period, and hence are able to derive a commensurate profit.* There is, however, something very fascinating in the rough, reckless life of the wood-cutter, or the lumber-man as he is called in North America, as of the wrecker in the Bahamas; though the occupation of the latter, since the general distribution of lighthouses on that perilous archipelago, has been terribly shorn of its once thriving proportions. Wood-cutting is scarcely liable to such interference, and its principal drawback would seem to be the gradual extirpation of the forests within accessible distance of water carriage. It has been repeatedly suggested, and I have long been of opinion, that a preferable mode of collecting the revenue from wood-cutting would be by a royalty upon the quantity actually cut according to admeasurement by Government officers, rather than upon the system hitherto in force, of license fees according to the size and duration of the grant; but I could not concur in the further proposal that there should be no delimitation of the spaces

* Notes on British Guiana, by Rev. Robert Duff, A.M. In the Appendix will be found the substance of a memorandum communicated to me since this Paper was in type, by Mr. Fauset, whose authority is beyond question, upon the various points connected with wood-cutting operations.

within which each grantee should be at liberty to cut; obviously were it only with the object of preserving peace and good order amongst such a class of men in such remote localities, some such regulations would be desirable.*

The Penal Settlement on the Rio Massaruni is situated in the midst of splendid forests, much of which, especially below the various falls or rapids, has been worked, the convicts themselves having been so employed both under contract with the holder of a wood-cutting grant, and, if I am not mistaken, also independently under their own officers; the experiment, however, has not been persevered in.

Owing to the unsettled state of the boundary question both between British Guiana and Brazil on the one side, and Venezuela on the other, vast tracts of the finest forest lands within our claimed boundaries are useless to us,† the Imperial Government having distinctly notified that persons venturing upon the disputed territories must do so at their peril, as they would not be recognised as entitled to protection as British subjects if interfered with by the local authorities of the foreign states. The same unfortunate state of affairs has an inconvenient effect in relation to the Indians who have been attached to some of the Mission Stations in the debatable land.

The prerogative title to all unappropriated lands is of course vested in the Sovereign; and originally the conferring of any beneficial interest in them was settled by the pleasure of the Crown, and the rents or

* By way of explaining the difficulties which wood-cutters are liable to meet with under the existing system, I quote the subjoined paragraph from the *Royal Gazette*, 10th January, 1874:—

“We hear that one or two extensive wood-cutters, in Essequibo, have fallen into the mistake of cutting timber on Crown Land, instead of their own, and that the timber so cut has been seized by the District Commissary. In one case, the seizure consists of 80,000 shingles and 16,000 feet of timber; in another it consists of the serious quantity of 30,000 feet of timber; which, at 40 cents. per foot—the rate some is being sold for at present—represents a very large sum of money. In this latter case, the wood-cutter admits having cut, by mistake, 1,500 feet on Crown Land, which he is quite ready to give up at once if the balance of the seizure is released.”

† “In lieu of palms, the most stately Mora trees overshadowed the river. In all former travels in Guiana I have nowhere seen trees of this description so gigantic as on the land adjoining the Basima at its upper course; indeed, frequently when our boat rounded some point which the river made in its course and a long reach was before us, these majestic trees appeared in the background like hillocks clothed with vegetation, until a nearer approach showed our mistake, and we found what we considered to have been a hillock was a single tree rising to the enormous height of 130 to 150 feet, forming by itself as it were a forest of vegetation. On the upper Basima this tree is so abundant, and grows to such a size, that the whole British Navy might be reconstructed merely from the trees which line its banks.”—*Schomb., Excursion up the Basima and Cayuni Rivers in 1841.*

other proceeds constituted a portion of the revenue known as the King's chest; but when an adequate Civil List was granted by the Combined Court, these rights were assigned to the Colony, and in 1838 they were regulated by ordinance. They were again the subjects of legislation in 1857, owing to changes in the administration of the department; but the arrangements not working satisfactorily, a Consolidated Ordinance was prepared and passed in 1861, which was in its turn modified in 1869 and 1871, all being swept away by the existing law, Ordinance No. 9 of 1873.

By the original law no license could be issued for any tract comprising less than 300 acres, or for a term of less than five years; by the amending ordinance these terms have been relaxed, and licenses can now be obtained for less than 300 acres, and 27 applications for surveys were lodged, of which seven received licenses, in 1871, and the balance was to be issued in 1872. One effect of the relaxation has been to render available many detached and partially cut out tracts of Crown land which would otherwise have been left to the depredations of squatters.

There exists an impression that, owing to some cause not clearly explained, the operation of the law has tended considerably to check wood-cutting operations; and I hazard the supposition that this may be partly owing to an evasion of the law by taking advantage of the privileges reserved to the Indians, by which speculators obtain supplies of timber through their agency without complying with the conditions required by law.* Objection has also been taken to the stringency of the provisions regulating the sale or lease of Crown lands, and to the minimum price affixed per acre; but when the enormous area of the uninhabited portion of the Colony is considered in proportion to its extremely sparse population, combined with the urgent demand for labour in the cultivation of the staples, it would seem only consistent with sound policy to endeavour to prevent the scattering of a peasantry living from hand to mouth, and practically beyond the harmonising influences of association with other classes of the community. Moreover, there is a wide discretionary power reserved to

* The value of the Indians as wood-cutters is testified by many authorities. The subjoined is from Schomburgk:—

“I have invariably found that the Indian sets to work at once with a good heart, and remains at it until his work is finished, which is generally two or three hours earlier than the negroes; but, not satisfied with this, he continues to work in his own hours, and I know many an Indian who, besides his regular wages, earns from two to three dollars a week. Were the Indian well treated, he would prove an invaluable labourer. Mr. McCullum had then (1836) in Berbice, some two hundred Indians, and upwards of fifty negroes constantly employed in cutting and squaring timber.”

the Governor as representing the Crown in regard to the mere occupancy of Crown lands, whilst in a legislature so peculiarly constituted as that of British Guiana, there is practically no difficulty in securing such modifications and relaxations of the terms and conditions as experience may show to be desirable. One important aspect of this question is undoubtedly the encouragement of the commutation by the Asiatic immigrants of their right to a return passage for an equivalent value in land, and several lots of land in the settled districts have recently been acquired by the Legislature with that view. I am sorry that I have not sufficient information as to the progress of the experiment to enable me to dwell further upon it.

The total number of acres granted in 1871 was :—

In lots above 100 and under 500 acres	...	...	...	2,324
Above 500	...	..	...	3,770
Total acres				6,094

In 1872 the acreage granted was as under :—

14 licenses under 100 acres	...	...	...	581
36 „ above 100, and under 500	...	...	...	9,310
7 „ above 500	...	...	...	3,677
57				13,568

No Crown Land actually sold.

A most interesting branch of the subject of this Paper is the consideration of the various useful products of the forest trees, irrespective of the timber which they yield; but I fear to enter fully upon it would be to occupy too much space in relation to a single Colony, when there are so many others having equal if not indeed even superior title to recognition in this department.

Without attempting a complete explanation of the diversified subsidiary products of our forests, attention may be directed to a few, whereof perhaps, in point of practical importance, the lead is taken by the inspissated juice of a tree popularly known as the Bully or Bullet-tree, variously identified as *Sapota Mulleri*, *Mimusops balata* of Gaertner, or *Achras balata* of Aublet. The substance was first discovered in Surinam, but Dr. Van Holst, of New Amsterdam, when on a visit to that colony, recognising the tree as familiar to him in Berbice, collected a quantity of the gum; and Mr. D. Melville, a chemist of New Amsterdam, had independently been led to test its qualities in 1859 or 1860 with regard to its suitability as a substitute for caoutchouc or for gutta-percha.

It is well known that although these gums differ but slightly in their chemical constituents, they are possessed of very different pro-

perties—gutta-percha, for instance, becoming plastic when immersed in hot water—a quality not possessed by caoutchouc. Again, whilst caoutchouc can be extended with facility in all directions, gutta-percha can only be stretched in the direction of its fibre or grain. Caoutchouc seems to be impenetrable to water even under great pressure and high temperature, whereas gutta-percha is of a somewhat porous nature, and not so well adapted for the purposes of insulation in the construction of submarine telegraphs. It is of essential importance that more attention should be bestowed, not merely upon the discovery of vegetable gums and resins, but upon their preparation for the market—neglect of which precaution has in some instances operated unfavourably to the character of baláta in this country, and, combined with the uncertainty of its supply, has seriously limited the demand.* Baláta may be considered to hold a position in regard to usefulness intermediate between gutta-percha and caoutchouc. Samples of it were exhibited amongst the Colony's contributions to the London International Exhibition of 1862, and then attracted the notice of Mr. Hancock.

In Berbice, the Bully-tree is found most abundantly on the low reefs of the swampy Canje creek, and varies in size from six to thirty inches in diameter, with a trunk having from twenty to sixty feet clear of the branches. There are two varieties, differing from each other chiefly in the shape of the fruit and the colour of the leaf. In the one, the fruit is oval; in the other, it is nearly round, being slightly depressed at the apex, and about the size of a large cherry. The crust-like rind encloses a sweet pulp and large seed similar in every respect to the sapodilla. The leaves are oblong; the upper surface of a dark green, while the under is of a brownish tint and glossy; but in the oval fruited tree, the shade of brown is much deeper; the milk is also of a redder hue than that procured from the round fruited tree, due to the presence of a large amount of tannin.

The milk of the Bully-tree is perfectly wholesome, and is sometimes used in the bush as a substitute for animal milk in coffee or tea.

In tapping for baláta, the cutlass is the most usual implement; the rough and woody outer bark is first scraped off, then a number of slanting gashes are made as high up the tree as the arm of the tapper will reach; in some cases double cuts are made, and the

* I have the best authority for this statement in the information kindly afforded by Messrs. Silver and Co., who, in connection with their Telegraphic Cable works, have been, I believe, the largest consumers of baláta. The uncertainty as to the regular supply, in adequate quantities, of the article has unfavourably operated also in regard to fibres and other auxiliary products of the Colony.

intermediate bark removed. The milk, flowing from these cuts on each side, trickles down the centre to the foot of the tree, where it is conducted into a calabash or other receptacle by means of a leaf, one end of which is inserted under the bark, forming a kind of shoot. An average-sized tree yields from fifteen to twenty ounces of milk, which when dried gives from twelve to sixteen ounces of solid baláta; the process does not injure the tree, as those that have been so tapped will after a year or two be found to have the old incisions covered with fresh bark. The milk flows with more or less freedom in different trees.

Another mode of obtaining the milk is by felling the tree and then "ringing," or making circular incisions about an inch in width along the whole length, at intervals averaging a foot apart; under each calabash is placed to receive the exuding milk, which will continue to flow for several hours if not exposed to the sun. An average-sized tree will thus yield from one to five gallons of milk, equal to five and a half to eleven lbs. weight of dry baláta. This method is however, a wasteful and extravagant one, the proportion of milk so obtained being very small, whilst the tree itself is usually left to rot; but it is to be observed, that the gum thus obtained is much less tinged with tannin than that collected by tapping the standing trees. Hollow trees yield much more milk than solid ones. The branches, whilst more prolific in milk, are rarely tapped, being, of course, much more difficult to get at.

At a heavy cost to those interested in the pursuit in this country, machinery was adapted and sent out for extracting the juice from the bark, and a steam mill was erected and worked in both Berbice and the Mahaicony Creek; but after considerable shipments had been made, it was subsequently found almost unmerchantable from the large proportion of impurities contained, whilst the price of gutta-percha declining, an additional check was given to all baláta operations. It should, however, be borne in mind that the gum procured by the operation of machinery can, with little trouble, be rendered quite as pure as that obtained by tapping. The simplest mode is to dry the material in clay pits and afterwards remove the impurities by washing them out in hot water. Rennet is said also to be very likely to be efficient in coagulating the milk and separating the impurities from it. The tree yields most abundantly during the rainy season, and the best time for tapping the tree is at early morning, and a day or two after full moon, until next new moon, when the yield abates. In low swampy lands tapping can be carried on even in dry weather, but the tappers must begin by day-break, for as soon as the sun gets well up, the milk ceases to flow. The material dries

readily on exposure in the shade, and in dry weather the exposed surface, which in two or three days hardens and assumes the consistence of sole-leather, may be lifted, and the under side exposed in its turn. It may be put up for shipment in sheets or moulded into blocks.

Baláta is heavier than water, having a specific gravity of 1.0422 ; it burns freely, evolving an odour resembling burnt cheese.*

Amongst many other valuable chemical and pharmaceutical products of the Guiana forests may be briefly mentioned angostura bark, efficacious in the milder forms of fever ; sarsaparilla ; simaruba, of established reputation in dysentery ; balsam capaiva ; laurel oil, useful in chronic rheumatism, and an admirable solvent of caoutchouc ; gums from the locust tree, from the mani, the hyawa, the kurakai, and the wallaba ; oils from the crab-tree, the cocoa-nut ; the monkey pot, the wangala, the souari, the acuyuri palm, and the cucurit palm, arnatto, fustic, lana, turmeric, indigo, logwood, Brazil wood, supply materials for dyeing, whilst barks suitable for tanning are innumerable. The hyawa above mentioned is also known as the incense-tree, and it perfumes the forest with its deliciously scented balsam ; the sciruba is not only valuable for its timber, but, by incision, yields a camphoraceous ethereal fluid, which, so far as is known, is *sui generis*.

In conclusion, I venture to add a few words upon the important subject of the Conservation of the Forests—a question now attracting attention and eliciting discussions in various quarters. The *Timber Trade Review* † states that “the consumption of timber is ever augmenting, whilst the area devoted to its production is being constantly contracted. It may be safely assumed that we shall have to pay £3,000,000 more for our foreign supplies of wood this year than what we had to pay in the preceding one. . . . The resources of the United States are rapidly diminishing, and when their own supplies fail they will naturally fall back upon Canada to replenish their markets ;” and, subsequently, it was announced in the same publication ‡ that we actually paid in 1873 £5,000,000 more for foreign supplies of timber than we did in 1872.

In connection with this subject I may reproduce an article from the *Globe* newspaper, of the 12th November, 1873, which was suggested by the papers on the woods of Tasmania, alluded to in my opening remarks :—

“Nobody wonders that the loss of her ancient forests forms the

* Preface to Catalogue of British Guiana contributions to Paris Exhibition, 1867.

† No. 15, p. 175.

‡ P. 223.

most serious drawback to the material prosperity of Persia, and that the replanting of trees is one of the first duties of her statesmen. Everybody, however, will hear with surprise that loss of timber is beginning to be complained of by the people of the New Worlds of America and Australasia. Such is the case. The primeval forests of America are disappearing, like the red man. In the United States a remedy is already sought for the wholesale deforesting so rapidly progressing. The early pioneers into the West naturally made war on the dense woods, which excluded sunlight from their homes and retarded cultivation. And so effectually did they perform their task that now it has become necessary to undo the effects of their work. It is seen that the agency of forest trees is indispensable from a sanitary and climatic point of view. According to the latest advices from the United States, Professor Hough, of Albany, at the recent Science Congress at Portland, advocated a systematic and official inquiry into the subject from the various bureaus, and that the result, embodied in a popular form, should be widely disseminated, in order to instruct the people and their rulers in the necessity of forest laws and judicious legislation. A discussion of the same subject, reported in the 'Proceedings' of the Royal Colonial Institute, has just taken place among the members of that body on the wholesale destruction of timber in Tasmania. One of the speakers declared that the Government of Victoria had found it necessary to take steps to preserve the forests of that Colony, and argued that similar means should be taken with respect to those of Tasmania. It is true, another gentleman, also a colonist, was of opinion that no apprehension ought to exist with respect to Tasmania, where, 'unless you kept working away, the forests would turn you out altogether.' But the same idea was at one time prevalent in the United States. It is curious that while we in the old country are insisting upon economy in the use of coal, our brethren in the New World and at the Antipodes are forced to advocate economy in the use of trees."

Having had the honour of representing the Colony as its Special Commissioner at the Paris International Exhibition of 1867, towards the close of that year circumstances induced me to address the Royal Agricultural and Commercial Society of the Colony, urging especially that provision should be made for restraining woodcutters from cutting hardwood timber below a specified minimum girth, and for insisting upon a system of replanting as clearances were effected.* Neither of these conditions have been as yet enforced, but I am happy to find that they are sup-

* Appendix II. and III.

ported by the judgment of a friend resident in the Colony, than whom I know of no one better qualified to form and express a sound and judicious opinion upon the point. In a letter recently received he says :—

“ I am glad you have again taken up the timber question and the resources of our forests. I am afraid that I am possessed of very little information on the subject, beyond what has been chronicled long ago, and made use of for Exhibition purposes. There was much evidence taken under a commission of the Court of Policy before passing the Ordinance No. 9 of 1873, but I have not seen it. The two points which I have chiefly urged remain as they were—namely, a prohibition to cut Greenheart timber under a certain size, the absence of which has gone far to ruin the Greenheart forests, and tended to injure the character of the timber, inasmuch as the timber of immature trees is of a very inferior description, and the cause of the inferiority is not generally known to the purchaser. The other point to which I allude is the absence of any provision for replanting Greenheart districts after the timber has been cut. By this short-sighted policy we are exterminating the Greenheart tree, and destroying an important source of wealth to the Colony, which might be made of nearly equal importance as that derived from the conservation of the teak forests in India. It is the more to be lamented that something is not done in this way, as Greenheart is already becoming scarce and dear, and the land where it thrives best is usually that which is least fitted for other purposes, and is almost entirely in the hands of the Crown, or the Colonial Government, to do with it as they please.”

These views are completely sustained by the experienced wood-cutter to whom I have previously referred, who suggests that no Greenheart tree of less than thirty-two inches in girth should be allowed to be cut; and who mentions that wood-cutters are now going over the same ground again, owing to the increasing scarcity of supplies within paying distances from the waterside. There are two aspects in which the subject may be viewed; one as affecting the capabilities of the country to maintain a supply of timber for local and export purposes on profitable terms, and the other, as affecting the influences upon its climatic condition. To dwell upon these, however, at a length commensurate with their importance, would involve the extension of these remarks to an inconvenient extent; and I propose, therefore, to embody the substance of the communications alluded to in the shape of an appendix to this memoir.*

APPENDIX I.

TIMBER AND ITS PRODUCTS EXPORTED FROM BRITISH GUIANA IN TEN YEARS.

Years.	TIMBER.*		CHARCOAL.†		SHINGLES‡.		HARDWOOD BOARDS.§			BALATA.||		COCOANUTS.¶	
	Cubic feet.	Value. £ s.	Barrels.	Value. £ s.	No.	Value. £ s.	Feet.	Value. £ s.	Quantity. lbs.	Value. £ s.	Quantity. No.	Value. £ s.	
1863..	407,839	27,306 0	23,091	2,598 0	7,895,150	8,136 0	..	...	3,654	280 0	532,222	1,889 12	
1864..	816,812	62,329 0	21,840	2,377 0	8,193,450	7,611 0	35,213	986 0	16,595	8,000 0	568,797	2,260 0	
1865..	503,849	34,410 0	19,614	2,303 0	6,389,400	5,904 0	25,086	870 0	20,000	2,507 0	540,750	2,031 0	
1866..	249,614	14,101 0	27,664	3,408 0	7,901,250	6,584 0	8,126	260 0	143 pkgs.	1,472 0	599,091	2,369 0	
1867..	277,028	17,159 0	24,862	3,105 0	10,534,750	8,963 5	15,247	445 4	37 pkgs.	381 0	630,799	2,590 15	
1868..	409,077	32,550 12	31,395	3,909 19	10,115,050	7,929 14	3,575	138 10	47 pkgs.	120 0	594,492	2,398 19	
1869..	250,394	15,014 8	35,271	3,993 0	8,750,500	7,993 17	4,630	103 0	16,824	1,121 12	566,307	2,204 0	
1870..	153,127	8,324 18	28,062	2,923 0	6,221,255	5,733 0	25,861	687 12	10,742	537 2	622,053	2,488 0	
1871..	62,540	3,900 14	34,413	4,360 0	9,026,675	8,691 0	23,288	774 13	12,168	942 14	637,718	2,523 0	
1872..	107,888	6,788 0	37,246	4,492 0	12,400,650	13,052 0	15,929	647 17	7,621	643 19 **	709,313	2,752 10	

* To United Kingdom and part to West Indies. † To West Indies and Foreign Islands. ‡ To West Indian Islands. § West Indian Islands. || Chiefly to United Kingdom. ¶ Almost entirely to United Kingdom. ** Of this £180 16s. value exported to United States.

NOTE.—The return in the *Timber Trade Review* gave the undernoted particulars of the imports of Greenheart and Mora into the Port of Liverpool:—Average Imports for the five years, 1868-72, 85,220 cubic feet; average consumption, 96,720. Imports for year ended 24th Jan., 1873, 59,396; consumption, 73,396. Imports for year ended 24th Jan., 1874, 93,600; consumption, 93,100. There are no means of ascertaining the quantities of timber, &c., consumed within the Colony, but as almost all the timber exported is from Essequibo, and the large quantity squared up the Demerara River is used up in the Colony, the quantity exported may be safely assumed to represent the half of the total produce.

APPENDIX II.

W. H. CAMPBELL, Esq. LL.D.,
Hon. Sec. R.A. and C.S., British Guiana.

LONDON, 12th December, 1867.

SIR,—1. During my official connection with the Colony of British Guiana, my attention was more than once directed to the importance of adopting measures for the conservation of the forests and the keeping up a supply of the valuable timber trees which constitute so important a portion of the public property.

2. The point was not lost sight of during the preparation of the Ordinance No. 14 of 1861; although for some reason, which I cannot now recall, it was not specifically provided for therein; and it is particularly adverted to, amongst other desiderata, embodied in the prefaces to the catalogues of the contributions sent by the Colony to the International Exhibitions of London in 1862, and Paris in 1867.

3. Nothing, however, having been yet done in regard to this object, it has been brought to my consideration anew by the perusal of Mr. Markham's interesting Paper in the latest volume of the Journal of the Royal Geographical Society on the effects of the destruction of the forests in the western ghauts of India on the water supply; and I think the subject will be deemed not unworthy of the notice of the Royal Agricultural Society.

4. I am unable here to have reference to the Reports of the Superintendents of Rivers and Creeks; but I think I am warranted in assuming that the rapid extension of woodcutting operations subsequently to the Universal Exhibition of 1851 has had the effect of destroying all the available timber within easy reach of water-carriage throughout very large portions of the district bordering on the rivers and creeks, insomuch as complaints as to the increasing difficulty and cost of carrying on woodcutting operations have become by no means rare. Nor is this due alone to the demand for shipping and framing timber, for I have myself heard described the operations of the charcoal-burners as so completely supplementing that branch of the trade as to leave large tracts of what once was forest as bare of trees as a turnpike-road.

5. The subject may, as it seems to me, be regarded under two aspects. one as affecting the capabilities of the country to keep up a supply of timber for home and export purposes on profitable terms, and the other as affecting the influences bearing upon its climatic conditions.

6. With respect to the former, it may be reasonably assumed that although the demand for the Colonial woods has been subject to considerable fluctuations, there is no reason to apprehend that it will permanently subside, or indeed to doubt that the more they become known the better they will be appreciated. In cabinet and furniture woods especially, the resources of the Colony are as yet unfamiliar to the art-manufacturers of Europe, and it was unfortunate that in the late Exhibition we had no samples to exhibit in competition with the specimens, both of raw material and articles of furniture, displayed by Foreign and other Colonies. But

unless some regulations be prescribed protecting from destruction until maturity, and for ensuring the reproduction of the more valuable trees in localities possessing facilities for transport and shipment, so as to admit of timber being brought to market under favourable and economical conditions, they will incur the risk of being distanced by similar products from other countries.

7. M. Clavé, in his admirable Report on the various collections of specimens of timber contained in the International Exhibition of 1862, observes: * "On conçoit cependant, combien il serait utile de connaître tous ces détails, et surtout les ressources que chaque pays peut présenter, mais, pour être fixé en ce dernier point, il faudrait que l'exploitation de ces bois ne fût pas abandonnée au hasard, et qu'on n'attendît pas la ruine des forêts pour prendre des mesures de conservation. Les Colonies Anglaises ont déjà donné l'exemple de cette sage prudence et presque toutes ont senti la nécessité d'assurer l'avenir en réglant les exploitations."

8. Mr. Markham states that for the last twelve years a system of forest conservancy has been established in the Madras Presidency, with a view mainly to the preservation of valuable timber and firewood, and to the retention of belts of forest near the sources and along the courses of streams. As a branch of the Public Works Department, he observes, a forest agency is very necessary, † both for the supervision of selling and

* *Rev. des Deux Mondes*, Dec. 1852.

† I am glad to be enabled to supplement these remarks by a brief quotation from a recent Report by Captain Campbell Walker, one of the Deputy Conservators of Forests in the Madras Presidency, showing the increasing importance of the subject in the estimation of the Government of India:—"I do think, and am sure that any who have studied the subject and will make themselves thoroughly acquainted with it by personal observation will agree with me, that, compared with most of the German states, we are behindhand as regards the systematic and scientific management of forests on a large scale, and as a part of political economy to which it is incumbent on a government to attend. . . . I grant that for England, state forests are not a necessity (although I am not sure that we may not some day regret their absence, or limited extent), for she can command the market for timber, burns comparatively little firewood, has a very small area, almost every acre of which is of great value either for building or for agricultural purposes, and from the many large estates which exist throughout the country and the naturally luxuriant growth consequent on a moist climate is, on the whole, well wooded, although, for the most part, the woods are grown for luxury (e.g. enhancing the beauty of the landscape, or affording cover for game), and not merely regarded as timber-producing areas. . . . In India, however, the position is quite different. Not only is there a large and ever-increasing local demand to meet the wants of a population of upwards of 200,000,000 in the shape of building materials and firewood—a demand which can never be met from abroad—but we have to consider such questions as climate and rainfall, affecting the irrigation and cultivation of thousands of acres. . . . In India the people still look to Government for everything, and will do so for many a year to come, and there is little or none of that peculiar form of private enterprise which will plant and conserve forests on scientific principles, introduce better methods of felling and converting timber, and look into and provide for the future and its wants.

"All this devolves on the Government, and particularly so, I consider, with regard to forests, which must be regarded and managed as a whole, and with regard to the general good, and cannot be left to the individual caprice of private individuals, or even communities, for trees do not grow in a few months

planting on a proper system and for the conservancy of forests, to obviate the disastrous effects of indiscriminate felling, on bridges, roadways, and irrigation works. Teak and other trees, yielding valuable timber, should be sown in large plantations near streams, by which they can be floated down to a market. These plantations must hereafter supply the demand for timber, and help to obviate the evils attending the destruction of the natural forests.

9. Of the teak plantations in Malabar Mr. Markham informs us that from 1844 to 1865 no fewer than 1,678,679 teak seedlings were planted, covering 1,696 acres, and yielding in 1865 £27,158 against an expenditure of £16,026. There are, moreover, teak and sandal-wood plantations in Wynaad, and a very fine plantation of Australian trees near Coonoor on the Neilgherries. The introduction of cork-trees is also suggested. But the most striking example of successful acclimation of exotic trees is afforded by the cinchona, of which at the end of 1866 there were upwards of 1,500,000 in the Government plantations on the Neilgherries, besides others belonging to companies and private individuals. After four years' growth the cinchona-trees had obtained a height of twenty feet.

10. In this respect, also, the establishment of nurseries of timber trees in Guiana might be of advantage to the prospective interests of the Colony, although the utilisation of indigenous products commands prior attention; for—to quote again from M. Clavé—"Que parmi les nombreuses espèces d'arbres qui croissent sur notre globe il y en ait beaucoup qu'il soit possible d'acclimater chez nous, c'est chose qui n'est pas douteuse; mais que cette acclimation soit toujours profitable, c'est une autre question. Il ne faudrait pas s'imaginer en effet que, parce qu'on est parvenu à introduire et à perpétuer dans un pays une plante qui n'y existait pas précédemment, on ait fait une bien précieuse conquête. Pour qu'il en soit ainsi, il faut deux conditions: d'abord, que la plante nouvelle ne prenne pas la place d'une plante indigène plus utile; en second lieu, qu'il soit moins cher de la produire soi-même que de la faire venir des lieux où elle croît spontanément."

11. In prosecuting whatever experiments may be decided upon with regard to the acclimation of exotics, the Colony may be congratulated on being able to avail itself of the assistance which the Royal Gardens at Kew—under the superintendence of Dr. Hooker, who, like his lamented father, takes such deep and practical interest in whatever may tend to promote the welfare of our Colonial dependencies—are so practically qualified to afford.

12. The other branch of the subject is probably, although more remotely, of at least equal importance. Mr. Markham rightly observes that the destruction of forests has been one of the chief agents in effecting changes in the earth's surface, and the best methods of counteracting evils which may

or a year like rice or corn, nor can one portion of a forest be managed, like a field, without reference to the surrounding tract. Most of the larger forest tracts are, besides, in the hands of the State as assessed or as unassessed waste, and will, if properly administered, form a great and ever-increasing source of strength to the rulers of the country."—*Captain Campbell Walker, Dy. Conserv. of Forests, Reports on For. Man. Germ. Austria, and G.B.*, 8vo., Lond. 1873, Madras, pp. 57, 58.

be caused by these extensive clearances is one of the most important questions that occupy the attention of physical geographers. On plains and plateaus the destruction of forests certainly reduces the rainfall. Humboldt has noticed this result in the case of the Lake of Aragua in Venezuela, and Sir Roderick Murchison has shown the great extent to which the mighty Volga has been lowered by the destruction of forests on the western slopes of the Ural Mountains, and by the drainage and improvement of marshy tracts. One obvious consequence of the destruction of forests is the increased rapidity of surface drainage, giving rise to sudden and destructive floods at the outlet on the plains, where the change of slope causes a diminution of velocity, and to injurious freshes in the irrigating rivers after they have reached the plains.

The effect of vegetation is undoubtedly to retard evaporation and to check the rapidity of drainage, and the removal of forests has, of course, an opposite effect. On the one hand, therefore, the land may be deprived of its proper supplies of moisture; and on the other, the mountain streams become more liable to floods. Singapore is stated to be an example of the effects of indiscriminate uprooting of forests in that island. The jungle was cut down and cleared away with reckless disregard of consequences; and the coffee plantations, being thereby deprived of the shelter they require, have all perished, and an important article of trade is lost to the community. In this instance, however, the climate is not affected; the irregular rainfall remains undiminished, but cultivation suffers.

It may no doubt be said that it will be long before such effects can be appreciably experienced in Guiana; but it is, nevertheless, the duty of Governments to take all such contingencies into account, in the interest of the communities which they represent; as it is, in Guiana, as in other tropical countries, the alternations of extreme drought and of excessive rainfall are of no infrequent occurrence, and they seriously affect the general welfare. If, as is actually the case in the peninsula of India, settlements shall ever be established in the higher lands for the cultivation of other products than those which now constitute the staples, and the field for which is restricted to the alluvial flats bordering on the sea, the changes effected by them in the condition of the locality may eventually render necessary the construction of costly and extensive works to preserve the fertility of the lower districts.

Were this, however, alone to be considered, it would very possibly be deemed a matter which might be safely left for those to deal with whom it most directly concerned; but I respectfully submit that the necessity for ensuring a continuous supply of forest-trees, and replacing the waste which is going on, is of immediate and practical importance to the present generation as well as to its successors. Having thus, however imperfectly, performed the duty of inviting the Society's attention to the question, I will not presume to attempt to discuss its bearings more at large; and, with the hope that my anxiety to promote, in however humble a degree, the prosperity of the Colony may be accepted as an apology for this intrusion, I leave it in their hands.

APPENDIX III.

W. H. CAMPBELL, Esq., LL.D.,

Hon. Sec. R.A. and C.S., British Guiana.

LONDON, 15th March, 1869.

SIR,—Somewhat more than twelve months ago I took the liberty of addressing you officially upon the subject of the construction of the forests in Guiana; and in November last it was recurred to in an editorial article published in the *Colonist* newspaper. I am not aware that any practical result has yet been arrived at, but the unusually severe and protracted drought under which the Colony has recently been, and indeed, I believe, still is suffering, induces me, at the risk of being considered intrusive, once more to urge it upon the attention of the Royal Agricultural and Commercial Society.

I do not at all presume—indeed I believe it would be difficult—to show that there exists any direct connection between the drought and the clearing away of tracts of forest-land so far as these have yet proceeded. But there cannot be a doubt that eventually the one will influence the other; and no one will, I think, hesitate to admit that the disastrous effects of continued drought upon the staple cultivation of the country, points to the imperative necessity of storing, in times of plenty, that copious supply of water which the savannahs there contain, and which would be materially affected by unrestricted clearance of the forest-lands stretching over so large an area of the interior.

In an interesting communication on this subject by Dr. Bidie,* read before the Royal Geographical Society, the author avows the opinion, for reasons which he assigns, that the annual rainfall in the Coorg country, in the southern peninsula of India, has not been sensibly diminished by the destruction of forests which has taken place. But he quotes, on the other hand, the opinion of the natives, that of late years their country has become hotter and drier from want of rain; and that rice crops have been diminished or lost from a failure of water in streams that used to run throughout the year. Dr. Bidie therefore proceeds to inquire what effect the destruction of forests may have upon other elements of climate and upon drainage, and he gives an interesting explanation of the origin of springs and streams in the forest-lands:—

“The question then arises—to what extent are springs and streams in such situations dependent on the forest for their supply of water, and what would be the effect upon them of its removal? It is perhaps hardly necessary to say that springs and small streams are fed by the water stored up in the earth during the rainy season. As the rain descends on natural forests, it is conveyed in various directions by the leaves towards the ground, and on reaching this is prevented from running rapidly off by the dense undergrowth of shrubs and herbaceous plants and a carpet of seed leaves. Below this, it encounters a layer of vegetable mould which, having a great affinity

* Trans. Royal Geographical Society, vol. xxxix., p. 77.

for moisture, absorbs it like a sponge. As soon as the humus is fully saturated, it passes on what water may subsequently fall, to the subjacent mineral earth, and this process of percolation is in various ways aided by roots which descend to great depths, percolating the densest subsoil, and even forming passages in rock. The quantity of water thus transferred to the depths of the earth and the reservoirs of springs is enormous, and when the dry season arrives, the forest again plays an important part by husbanding and giving off gradually the subterranean supplies. The means by which these beneficial influences are exerted are various and interesting. As the water rises to the surface it is, as in the case of its descent, again partially retarded by the layer of humus, and having passed through that, is so obstructed by various mechanical obstacles that it does not readily acquire the volume of a stream and so pass quickly away. The way in which the soil is matted together by roots in forests also renders it very difficult for a small stream to cut out a channel; and when such has been formed, it is in general so tortuous and the current so slow that it must lose a considerable amount of water by percolation. At the same time the shade of forest greatly restrains evaporation, and, although the quantity of water taken up and exhaled by trees is very great, a portion of it is returned as dew or fog, and what is wafted away is fully compensated for by other advantages resulting from the presence of forest. The influence of shade in modifying evaporation is well illustrated by what happens in the coffee districts after the April showers which herald the advent of the south-west monsoon. On an estate freely exposed, a day or two of sunshine after a heavy fall will have rendered the soil quite dry and hard again, whereas on an estate under forest shade the ground will continue damp for a week or more. Although their insignificance might lead to their being overlooked, there can be no doubt that the mosses, lichens, and succulent herbaceous plants which abound in tropical forests are also of considerable benefit in retaining moisture, as, during rain, they absorb water like a sponge, and part with it again very slowly. It would therefore appear that there are numerous agents and conditions in natural forests favourable to the production and permanence of springs and streams which are not to be found in open ground, whether originally so, or denuded of its trees by man."

The conclusion at which he arrives is that the tropical forest is the *alma mater* of springs and streams. Various instances, he adds, have been brought to his notice, of springs and small streams having become quite dry since the forest in their neighbourhoods was cleared away, whilst in numerous cases those that used to be perennial, only now contain water for a short period during and after the monsoon. Similar results have been found to follow destruction of forests growing near the sources of streams in all parts of the world.

In Guiana, as I have before remarked, I do not think the clearances of forest-lands have as yet materially affected the springs and streams, and the more urgent and immediate object of importance is to devise means for arresting the enormous waste of water which now prevails, and in connection therewith to restrict woodcutting near the sources of supply.

That this question assumes gigantic proportions the more closely it is looked

at, is undeniable. In a level country extending for many miles inland as in the case of Guiana, but little aid in the construction of reservoirs can be expected from the natural configuration of the locality, and the earthworks required would probably be costly both to erect and to keep in repair. The canals which were either constructed or contemplated aback of the coast estates in Berbice and Demerara embody an idea which it would probably be even now found beneficial to reconsider, while in Essequibo the existing lakes might with perhaps comparative facilities be utilised towards the attainment of the object in view. But these are points on which I confess myself quite unqualified to offer any suggestion which can be of the smallest practical value.

The most obvious preliminary step is that of a general survey of the country between the Sandhills and the sea, towards which those recently made with especial reference to the supply of water for the city of Georgetown would no doubt be a valuable contribution. Some years ago it occurred to me as highly desirable, with a view to dealing with this and similar questions, that the department of the Civil Engineer might be reconstructed upon a scale which would enable it to supply all the information required as well as probably to afford the means of carrying out such undertakings as might be required. In the dearth of suitable employment for many young men who have availed themselves of the opportunities of sound education afforded to them, a staff of surveyors and engineers might be organised which, when the time arrived for applying their skill, would be found far more economical than the engagement of assistance from without.

But whether by this means, or some other better adapted to the purpose, I venture to submit that no avoidable delay should be permitted before this question of storing a supply of water for agricultural purposes, the intrinsic importance of which is far beyond any it can attain from whomsoever may press it upon public attention, should be promptly and earnestly considered by the Agricultural Committee of the Royal Agricultural and Commercial Society.

APPENDIX IV.

Woodcutting licenses are obtained from the Government generally in blocks of 300 acres for five years; the cost of survey, acre money, and other charges amount to about \$500 for the whole term.

The timber is squared by piece-work, say generally at 4 cents per cubic foot. All other labour in connection with it is by day-work. Ordinary second-class labourers to make the paths or roads, get 32 to 40 cents per day; good first-class men for hauling the timber out of the bush 48 cents per day. The Kroomen are the best for this work. All the day-labourers are fed at the expense of the employer; those who do piece-work feed themselves. In some situations animal labour is employed for hauling the timber, but from the difficulties arising from hills and swamps this cannot always be done. You will observe, from the high rate of wages, and the food supplied, that the expenses are very heavy. I have often made the calculation, and found that under favourable circumstances Greenheart could not be delivered at the

shipping place for less than 30 cents per cubic foot. Mora can be delivered at about 20 cents, as this wood has not been so much cut out as Greenheart, and is nearer water carriage. Determa, a kind of bastard mahogany, has of late years been more used than formerly, several lots having been sent to England within the last two or three years. Bullet-tree is a very durable and strong wood, formerly much used for building and mill timber, it is very plentiful in Berbice; the baláta is obtained from this wood either by tapping and drawing the sap, or from the bark. The bark and seeds of the Greenheart yield Biberine. Of late years I have not heard of any being shipped; but I have frequently had £5 per ton for it. The Silverballi is a valuable wood for boats and other craft, as it is very durable and does not take the worm; it is said to be very plentiful in the Wai-ine. The Tonquin bean and hackia, or cog wood, are very hard and tough, and would make better backing for iron-plated ships than teak.

There are several woods that make good sugar hogshead staves and hoops, but the licensed woodcutters do not turn their attention to those articles; were the land regulations altered so as to enable poor people to obtain lands at a reasonable rate, say to purchase allotments of Crown land of about 50 or 100 acres at about \$5 per acre, we should have a lot of small settlers in the rivers and creeks, who might be induced to turn their attention in that direction, as well as to cultivate provisions, and various other profitable plants that require very little expense in preparing for the market, such as indigo, anatto, cocoa, coffee, as well as other smaller plants, such as ginger &c., for the growth of which the soil in the rivers is well adapted. I have seen several cacao and coffee trees in the bush that have been there since the lands were held and cultivated by the Dutch. Schomburgk mentions a grove of cacao trees growing wild in the upper Essequibo. The Purpleheart, sent to the French Exhibition, was said by Sir William Holmes to be very much admired by the cabinet-makers in Paris.

Dye woods and medicinal plants abound in the forests of British Guiana, but they will never be properly utilised till a really good botanist takes the matter in hand; it is a pity one had not been attached to Mr. Brown's party; were such a person employed, accompanied by a few intelligent Indians to point out such plants, barks, and gums as are used by themselves, a great deal might be brought to light. For instance, an Indian in the Essequibo, who visits me occasionally, was lately bitten by a Labarri snake, just under the ball of the thumb; he applied nothing to it but the inner bark of the Amarato pounded up into a poultice, and drank a decoction made from the same bark: he was well in a month. I think if some person would make a collection of dye woods, gums, and other small matters, and send them to our museum here, with the names they are known by in commerce, much good might eventually arise from it, as even if we had the samples without the names, we should still be in the dark as to their value.

With regard to woodcutters' licenses, I think the present system will do very well, except that licenses might be granted for 100 acres, and from one to ten years; but if the Government wish to preserve the Greenheart for future generations, all young trees should be preserved; no young Greenheart tree of less than 32 inches' girth should be cut. This wood is already

becoming scarce, and is hardly to be obtained at a paying distance. The woodcutters are now going over the old ground again.

There is abundance of fine timber above the rapids, in the Essequibo, Massaruni, and Cayuni rivers, but the rapids prevent private individuals from attempting to get it down; but the Government might, by placing a tramway on the bank of the river, open up the country to a large extent, particularly in the Essequibo, and by charging a toll recoup themselves in a few years for the outlay.* I see by the newspapers, Sir George Young says in his lecture: "British Guiana has been found to be absolutely without gold;" he knows nothing about it. The gold mines in Venezuelan-Guiana, bordering on the Cayuni, are now being worked. There is gold in the Cayuni, and though our affair was mismanaged, there is gold nevertheless. The first specimen of gold quartz I ever saw was in the possession of an Indian, from the head of the Massaruni; he told me he picked it himself, and would go with me, if I wished, to the place. The gold mines in Cayenne are being worked with great advantage at the present moment.

With regard to the fluctuations in the timber trade with this colony, it is regulated principally by the supply of teak in the English market.

T. F.

APPENDIX V.†

GOVERNMENT NOTICE.

His Excellency the Governor is pleased by virtue of the power conferred on him by Ordinance No. 12 of the year 1871, to direct the publication of the following Regulations, defining the privileges henceforth to be enjoyed by the Aboriginal Indians of this Colony in relation to Rivers, Creeks, Crown Lands, and Forests of the Colony:—

1. All such Aboriginal Indians shall be at liberty to cut on any land of the Crown not licensed or granted to, and not in the lawful occupation of, any person, timber, to be used by them, or to be disposed of by them in the shape of squared timber, under the restrictions hereinafter set forth, and of a size which will square not more than twelve inches.

2. They shall be at liberty to cut or gather on any such land of the Crown as aforesaid, any troolies, palm, or other leaves, and to make any shingles from trees of whatever size, growing on any such land of the

* My own feeling has always been in favour of employing the convicts of the Penal Settlement in the direction indicated by the writer. My impression is, that whilst to expect that Europeans shall be capable of enduring the fatigue and exposure of outdoor labour on the alluvial flats of the seaboard would be fallacious, there is nothing to prove that the case would be the same in the interior. To ensure, however, a fair trial of the experiment, it would be indispensable that the whole of the preliminary operations should be carried out beforehand, and the best pioneers of civilisation would be the convicts. There are rivers to be made navigable, roads to be formed, tramways to be laid down, and bridges constructed, forests to be cleared, and swamps to be drained.—W.

† Refer to p. 139.

Crown, and to burn any charcoal on, and to dig, remove, and carry away any soil, rock, stone, sand, or other substance or thing, except minerals, from any such land of the Crown.

3. Provided that they shall not be at liberty to dispose of any timber or shingles to any person engaged, or to any person employed by any one engaged, in the business of woodcutting; and any timber or shingles that may have been cut or made by any Aboriginal Indian, and that shall be found in the possession of any person engaged, or any person employed by any one engaged, in the business of wood-cutting, shall be liable to seizure, and if seized, shall be forfeited in the same way as if such person had cut or made such timber, or shingles, on lands of the Crown not licensed or granted to, and not in the lawful occupation of, any person.

4. Provided further, that if ardent spirits, or intoxicating drink of any description shall be given by any person to any Aboriginal Indian in full or in part for any article or articles whatever mentioned or referred to in these Regulations, disposed of by such Indian, such article or articles, and all articles whatever mentioned or referred to in these Regulations, disposed of at the same time, shall be liable to seizure in the possession of such person, and if seized, shall be forfeited in the same way as if such person had cut, gathered, made, burnt, or dug, or had removed or carried away, such article or articles on, or from, lands of the Crown not licensed or granted to, and not in the lawful occupation of, any person.

E. N. WALKER, Acting Government Secretary.

Guiana Public Buildings, George Town, Demerara,
12th September, 1871.

APPENDIX VI.*

Return of amounts derived annually from wood cutting licenses in British Guiana :—

1861	...	...	...	...	...	\$9,963·85
1862	...	...	...	...	...	10,352·22
1863	...	...	...	...	...	8,863·18
1864	...	...	...	...	...	12,146·79
1865	...	...	...	...	...	9,718·
1866	...	...	...	...	...	12,118·29
1867	...	...	...	...	...	9,424·30
1868	...	...	...	...	...	13,596·47
1869	...	...	...	...	...	8,098·30
1870	...	...	...	...	...	7,997·21
1871	...	...	...	...	...	7,486·30
1872	...	...	...	...	...	7,450·12
1873	...	...	...	...	...	7,479·99

* Refer to p. 140.

DISCUSSION.

Mr. EDDY remarked that Mr. Walker had spoken of replanting the forests in process of destruction. He would like to know if the same timber grew up underneath after the present primeval forests have been destroyed. In North American forests, the general experience was, that when one forest was burnt down the same forest did not grow up again, but one of a different kind. Probably the reason of that was that the soil was exhausted for that particular species of timber, and would more readily produce another. He would also like to ascertain whether the Greenheart and Purpleheart were rapidly-growing trees. The Crown might have the foresight to replant districts, but it could not be expected of any private owner, for he could not expect to reap the fruits. That was the one great advantage of the Crown retaining possession of these forests. It might be a question whether the same kind of trees, even if replanted, would grow well. Many kinds of trees grow up again after they are destroyed, from suckers, but that is not the case with the pine tribe. When the pine tribe is destroyed, nothing grows up from that, and it would be interesting to know whether the Greenheart and Purpleheart were subject to this law. In Australia all the varieties of the Eucalyptus, which is the prevailing tree, readily grow up from suckers after they have been felled. He would ask Mr. Walker whether it was the same in the case of the trees he had mentioned, and the Mora? A remark had been made that these trees would be useful for armour-plated ships. Was it not the case that they contained too much tannin—the disadvantage of which was, that it corrodes the iron, causing rust, and the loosening of the plates? For this reason the oak, which would be the natural backing of armour-plated ships, was not used, but teak was used instead. He was afraid that it was the same in the case of the Greenheart and the other trees, that they contained so much tannin as to render them unsuitable.

Mr. WALKER replied that he could not give any satisfactory information upon some of Mr. Eddy's questions. If the rule were adopted of preventing any trees being cut under a certain growth, that would at once prevent much of the injury. If the seed were sown he had no doubt that they would grow in the same soil again.

Mr. EDDY.—What height do they attain?

Mr. WALKER.—From one hundred and forty to one hundred and

fifty feet. One Mora tree was mentioned which reached 108 feet from where it had been cut to where its lowest branch sprung.*

Mr. EDDY understood that there were difficulties about the boundaries. The boundaries had to be ascertained on the site of the water-shed, and it also had to be ascertained what was the water-shed on the western and southern frontier. One would suppose that the best way to ascertain that was the nearest available water carriage for the timber.

Mr. WALKER believed the Report of Sir Robert Schomburgk was adopted, which proposed the water-shed as the basis; but it had never been settled, and it was a matter of great practical importance to the Colony.

Mr. EDDY asked if these timbers, the Greenheart, Purpleheart, and Mora, were proof against the white ant.

Mr. WALKER answered that they were indestructible, under certain circumstances, but that their white ant was not, he believed, that commonly known as the Termite; he might, however, be mistaken.

Mr. EDDY said that would meet a great want as to sleepers for India and other tropical countries. The wonderful water power which existed in Guiana would be a great advantage in bringing these timbers into the market.

The CHAIRMAN, referring to the falls and rapids in the rivers, observed there would be no great difficulty in sending the timber down, as it could be constructed into rafts and floated down in great pieces, or in certain places, if necessary, a sloping canal, or timber sluice, might be constructed, and a stream of water let into it.

* "Early the next morning we went to examine the rustic bridge, and found that what had seemed two streams was in fact one and the same, which at some distance takes a singular bend and winds back again. Across the deep bed of the stream where it is thus doubled the Indians had thrown their bridge by felling a Mora, so lofty as to include both portions in its span. I measured the trunk of this tree, and found it 108 feet from the part where it had been cut to that where its lowest branch had grown. A noble size! yet there seemed many others around of equal magnitude and beauty in those calmly majestic forests." —Brett's *Indian Tribes of British Guiana*, p. 218.

"A remarkable silk cotton tree (*Bomboz Globosa Aubl.*) at the foot of Tenette, astonished us by its immense size and the extent of its ligneous buttresses or excrescences. Its height was only 102 feet, but its branches extended 129 feet; the circumference of the trunk about one foot above the ground was 57 feet, and the breadth of one of the tabular excrescences was 8½ feet." —*Schomb. Journey to the Takutu.*"

"In the provision fields behind my tent stood one of the finest trees I have ever seen in my wanderings. The compound leaf, the small leaflets, and indeed the whole appearance bespeak it to be a Mimosa. Its whole height is 168 feet, the trunk from the base to the lowest branches measuring 73 feet. At a foot-and-a-half above the ground it measured only 27 feet in circumference, but ascended perpendicularly of almost equal thickness to the branches, and appeared like a slender column bearing a finely formed leafy capital." —*Schomb. Journey from Pirara.*"

Mr. EDDY observed, that there were periodical rains, and that after the rains the rivers were flooded.

Mr. WALKER said the rivers were, at such times, very full.

Mr. FREDERIC YOUNG said allusion had been made to the Greenheart, and the question had been asked whether it was a very rapidly-growing tree. It was a very favourite ship-building timber, and his experience was that trees of that character were more frequently of slow than of rapid growth.

Mr. WALKER desired to have it distinctly understood that when he was speaking of its being of rapid growth, he was speaking relatively—that it would come to maturity for certain purposes in a reasonable time. But he must really fall back upon the observation he had made in his Paper, that he could not pretend to any special or scientific knowledge of the question, and he would rather not make himself responsible for any such statements.

Mr. F. YOUNG said his object in asking was rather to ascertain the practicability of their use for armour-plates. Of course, in the case of its use for ordinary ship-building the same objection did not apply, as the fastening in that case was of a different character.

Mr. WALKER thought it had been used in the erection of dock gates, and for the keels of vessels of large tonnage; and the North Western Railway had made some experiments with it for building trucks, but they did not appear to have followed them up.

Mr. EDDY did not think that “soon ripe soon rotten” was a maxim of universal experience. The Blue-gum of Australia was of very rapid growth and very durable.

The CHAIRMAN felt that their best thanks were due to Mr. Walker for drawing up the Paper. In reference to some of the remarks which had been made, his Grace said that it was a condition of the timber licenses in Canada that no trees should be cut under 12 inches; and it was only when the grant is sold or granted to a settler in freehold that he could do otherwise. Then of course he cuts away; but as long as any timber is cut under licenses, no timber can be cut under 12 inches. As to the timber shoots, of which he had spoken, they were in practice in Canada, at the La Chaudière Falls at Ottawa, which, as the name implies, means a cauldron; and of course any timber falling among the rocks would be split up and damaged immensely. There they have constructed a sloping canal of wood, so as to pass the falls; and it has some steps in it, sufficient to carry a depth of water all the way down, and then they pass undamaged. As to the damage done to timber by falls and rapids, his Grace mentioned that last

year, when he went up the Muskoka district with some railway directors, they were considering the expediency of carrying forward the Canadian Northern Extension Line, as some timber owners and lumber merchants there said their loss in sending the timber down the rivers was 25 per cent., so that it would be well worth their while to pay railway carriage for a considerable distance rather than suffer this loss in sending the timber down the rivers. And no doubt it would be well worth the while of British Guiana, instead of trying to shoot the rapids, to prevent the damage to the timber by constructing such timber-slides, and so pass them. In conclusion, his Grace thanked Mr. Walker for his Paper.

Mr. WALKER was very grateful to his Grace and the meeting for the way in which they had received his Paper. He had really no claim to any original knowledge, but he had no doubt that the discussion which had ensued would bring from others better qualified than himself the correction of any errors into which he had fallen, and who would supply any deficiencies of which he had been guilty.

The ASSISTANT-SECRETARY then read the following Paper, by Mr. HUGH MUNRO HULL, Clerk of Parliament of Tasmania, on

THE ECONOMIC VALUE OF THE FORESTS OF TASMANIA.

In my former Paper (read April 1st, 1873) I gave a very short account of the extent of our forests. I now propose to show their value in a commercial point of view.

Of Tasmanian timber trees there are twenty-six varieties, and I will remark upon them in the order of their commercial value.

The Blue-gum tree, which grows to an enormous height and also attains great dimensions, is the most valuable, and exists in very large quantities in the forests to the west and south-west of the Colony. It is said to be equal to the English oak for ship-building purposes, and beams of dimensions ranging up to 200 feet in length can be obtained.

The diameter of the trees, some of which attain a height of 350 feet, is greatly increased near the ground by the spreading of the bole; and, in consequence, the sawyers and splitters have to erect stages ten feet and more above the ground and around the tree, and then chop and saw it through, often where the diameter is then twelve feet. The enormous body of the tree is then cut into lengths, and either sawn into beams and boards, or split into

posts and rails, or shingles and laths, for houses, or palings for fences. The crooked portions of the branches are cut for knees, in ship or boat building; and their value ranges, according to size, from 4s. to 10s. each. Timbers or planks fetch 40s. to 50s. each, according to length of 50 feet or upwards. The present value of the Gum-tree products in the market is as follows:—

Sawn timber, 6s. 6d. per 100 feet run.

Palings, 6 feet long, 7s. to 8s. 6d. per 100

„ 3 „ „ 5s. to 7s. „

Shingles, 7s. 6d. to 8s. 6d. a thousand.

Laths, 6s. to 7s. „ „

Posts and rails, 20s. to 23s. per 100.

By destructive distillation, 10,000 cubic feet of a white-burning gas can be obtained from a ton of green leaves of the Blue-gum. Our gas companies charge their consumers 20s. per 1,000 feet.

A ton of Gum-wood will produce by distillation from 800 to 1,000 lbs. of pyroligneous acid; 100 to 140 lbs. of tar; 7 to 10 pints of naphtha; 2 to 3 gallons of kreosote; and 500 to 600 lbs. of charcoal.

The rough pyroligneous acid will then produce 80 to 100 lbs. of acetate of lime, the average value of which in the English market is from £8 to £10 a ton.

Kreosote is worth 2s. a gallon in the English market; and it is largely used in the Royal dockyards for preserving timber.

Pyroxylic spirit fetches 4s. 6d. a gallon.

Charcoal for furnaces is worth £1 a ton.

Acetic acid is used in tons in English manufactories for calico printing.

Oil distilled from the fresh leaves of the Eucalypti is a solvent for resin and varnishes, and is said to be equal to cajeput in rheumatic diseases. One hundred pounds of freshly-gathered leaves produce 12½ fluid ounces of oil, of a camphor-like smell, and of a specific gravity of 0.917.

The Government of India, after hearing the report of one of their inspectors of forests, have recently purchased here 2,000 rupees' worth of Blue Gum seed, with a view to its being sown in valleys where ague existed, as it is well known to be a valuable remedy in such diseases; and the green leaves have been found to be cooling and healing when applied to wounds or cuts. The seed has also been largely purchased by the French Government for Algeria, and other French Colonies. It is also sent to the treeless districts of Southern New Zealand, in the damp climate of which the Blue Gum makes rapid growth.

The flowers of the Blue Gum contain a considerable quantity of a saccharine matter, which affords food to bees, and also to paroquets and honeysucker birds. A swarm of bees placed in a tea-chest 3 ft. by 3 ft. near a large Blue Gum tree, will fill the hive in a season with rich aromatic honey, worth 4d. to 6d. a pound; and in early spring it is delightful to see flocks of bright green paroquets glancing through the trees, even in the very heart of our city, in search of the sweet food, and affording targets to the catapults of the ragged city Arabs.

One blue gum tree grew in a field on my father's estate of Tolosa, in the rich little valley of Glenorchy (the most English-looking valley in Tasmania). Its enormous size made it famous, and it was locally called Bostock's walking-stick. After cultivating the field around it for some years, my father cut down and rooted out the giant, at an expense of £7.

As the tree lay upon the ground, its diameter was 8 feet: and it was 176 feet long to the point where the first branch shot out. By means of an American auger and blasting powder, it was split into posts and rails, and furnished nearly sufficient to fence in the field in which for a thousand years it had stood "monarch of all it surveyed."

The great tree measured by Sir W. Denison, K.C.B., Captain Erskine, R.N., and others, stands nearly a mile above this spot. A bush fire has recently burned a hole in its body, in which fifteen people stood alongside of each other; and the scrub around it has been washed away by the flood from the celebrated landslip of Mount Wellington, which last year fell to the extent of 100 acres and more; and in its destructive course carried away my little vine-covered cottage, with its rich garden and orchard.

Next in value comes the Swamp Gum-tree, so called from always growing in low lands or damp valleys. This tree is much sought after by sawyers and splitters, and it grows to a great height and large diameter, with such a straight bole and fibre as to split as small as a lucifer match, if required.

I spoke of one tree producing £245. worth of timber in the market; and at this moment I have used the measuring tape on two spars lying close to my office; their dimensions are as follows:—

(1.) 77 ft. 4 in. long, 11 in. in diameter at butt, 3 in. in diameter at top.

(2.) 76 ft. 4 in. long, 10½ in. in diameter at butt, 4 in. in diameter at top.

They look like gigantic fishing-rods, as straight as if cut by hand.

The value of the swamp gum timber is the same as blue gum, and fetches the same price in the market for split timbers. These woods are brought out of the forest by splitters, who pay Government half a crown a week for a license.

The produce of a single acre of a good bed of timber is somewhat as follows :—

40,000 palings, for which the splitter receives	40s. a 1,000.
100,000 shingles or laths,	4s. a 1,000.

The purchaser then has to pay about £25 for freight of the above, or cartage, and in the market the produce is:—

Palings at 60s. (a low average)	...	...	...	£120
Shingles or laths at 8s.	...	...	...	40
				<hr/>
Total	...	...	...	£160

At this date the contractors for the main line of railway which will connect our two ports, have in hand 240 miles of four-rail fencing from split timbers, which will take 400,000 posts and rails.*

Exported to other Countries—

SPLIT.	{	Laths and Shingles	..	..	..	4,288,000 in No.
		Palings	..	..	..	5,898,525 „
		Trenails and Staves	..	..	..	1,086,191 „
		Posts and Rails	..	..	..	33,350 „
		Logs and Piles	..	..	..	448,640 „
SAWN.	{	Battens	..	..	..	5,098,229 feet.
		Boards	..	..	..
		Timber of sorts	..	..	..

Value about £50,000.

The same remarks as to value of products apply to the Stringy Bark Gum tree, the White Gum, and the Peppermint Gum; the leaves of the two latter of which produce by distillation an essential oil of value, 100 lbs. of fresh leaves producing three imperial pints of oil.

The white gum also produces manna, often in considerable quantities. This is a slightly medicinal product. A small black and white fly punctures the young saplings when the sap is rising from October to April; the juice, when exposed to the air, hardens into white granulous particles, and is shaken to the ground by the wind. Children eagerly eat it, and I have seen turkeys and geese also busily picking it from the ground in the Queen's domain, close to the city.

* The extent of the splitting and sawing industry may be inferred from the *Export* of prepared timber in 1872, after all the local markets for building and fencing had been supplied.

The Stringy Bark tree, another variety of Eucalyptus, is covered with a ragged, readily inflammable bark, which is frequently seized upon by bush fires in summer. A tree 300 feet high on fire all round the body, a pillar of fire, and the roar of the gaseous leaves as the flame catches them, is a sight well worth seeing, and often seen. I often wonder that our city Arabs do not collect this bark for fire-kindling in the houses in town, for householders would willingly give 6d. for an armful.

Next in value is the Blackwood, which is a very hard-grained, dark, and richly-veined wood, well adapted for cabinet-maker's work. It may be obtained in any quantity, and of large size, on the north-west and south-west coast, where are numerous ports from which it could be shipped to the Victorian market, where it is in large demand for heavy furniture, especially for billiard tables. It is susceptible of fine polish. The chair in our upper chamber, where the Governor, representing our Most Gracious Queen, sits, is of this wood, and being well carved is much admired. The value of the wood varies according to beauty of fibre, or veining, as it forms excellent and durable veneers. It is also largely used in making casks, especially for those used in conveying whale oil to England, the wood being less porous than others.

Then comes the Huon Pine, a remarkably light-coloured wood, marked with veins and black spots, somewhat like the maple. This is largely used for ornamental purposes in ships, houses, and for picture-frames. The fibre is soft and easily worked, and yet it is everlasting in its wear and tear.* Fine beds of this timber have recently been discovered on the Arve and Picton rivers, about three miles above Hull on the Huon river. The trees are cut down and drawn to the river-side, and when the rivers are high they are floated down, as in Canada, to deep water, from which they are brought up to market.

All the other timbers are useful for cabinet-work, and these are the Myrtle, Musk, Cherry, Sheoak, Honeysuckle, Dogwood, Rosewood, Sassafras, Pencil Pine, &c. &c. For veneers they can be cut to sizes varying from 3 inches square up to nearly 3 feet square, of the most beautiful veining, and of great value for their durable qualities and their capability of taking a fine polish. The Myrtle tree grows to a great height and girth—200 feet high, and 30 or 40 feet in circumference.

The very Sheoak log which now warms my feet on this winter

* Tasmania has no white ants, with their destructive habits; but there are three species of ants which sting pretty sharply, equalling the pain of a bee sting.

evening would be a prize to a veneerer in the good old country, from the great beauty of its marks. I pay 17s. a ton for it, cut into lengths of a foot, and split into two or three pieces, and this ton of wood will burn my study fire for a month. It is a slow but warm burner, and leaves but a handful of white ashes, which will produce the potash of commerce at a small outlay.

The Sassafras is a white wood of value for ship furniture from its great durability, and the bark is medicinal. It is also a handsome tree for ornamental purposes. The oil distilled from its bark and leaves acts with great energy on the vital functions, and is sold for 15s. an ounce. It is a diaphoretic, diuretic, and sedative, and exerts a specific lowering influence on the action of the heart. In large quantities it is a dangerous poison: 100 pounds of bark, or leaves, will produce eighteen ounces of oil.

The Gum Kino is a product of the Eucalypti, or gum trees. It exudes largely, and forms into tears or globules of a rich ruby colour. Its taste is intensely astringent, and is sometimes locally used in cases of diarrhoea.

The juice of the Cider Gum-tree is used by shepherds in the elevated parts of the country to mix with water, and allowed to ferment, when it forms a pleasant summer drink, far to be preferred to the bad spirit, full of fusel oil, which is sometimes illicitly produced from the black sugar which the shepherds get.

The Oyster Bay Pine produces a white gum, which is said to be equal to the gum sandarac of commerce, which it closely resembles.

The balsamic gum of the Xanthorrhoea, a grass tree (which, however, is not a *timber* tree), is of much interest. If operated upon by nitric acid, it becomes the *picric* acid of commerce, which is of great value in dyeing goods a bright yellow colour. It grows plentifully on Flinders Island, the home, and the *last* home, of hundreds of our unfortunate aboriginal inhabitants.

The Wattle trees produce bark fit for tanning purposes, which fetches from £9 to £10 in the English market, and the gum is valuable for commercial purposes, being similar to the gum arabic of commerce, whilst the gum of the black wattle is edible, and formed an article of food to our black aborigines, and is now eaten readily by our young Tasmanians of all colours.

Mr. EDDY then produced some specimens of wood from British Columbia, which were exhibited by Messrs. Roberts, of Rood Lane, E.C.

Mr. EDDY then read a Paper, by JAMES ERSKINE CALDER, Esq., of Tasmania, on

THE WOODLANDS, &c. OF TASMANIA.

The Settlement of Tasmania commenced in February of 1804, under Lieutenant-Governor Collins; nine "free settlers," as they were styled, and about five hundred other persons—civil and military officers, soldiers, and convicts—having sailed from England with him in the preceding year. The names of these "free settlers," it may be as well to record, as it is always interesting to know who were the earliest cultivators of the land. They were: Richard Pitt, Thomas Hayes, Henry Hayes, Thomas Thistle, John Blinkworth, William Cockerill, Thomas Figgett Littlechild, Thomas Richard Preston, and John Dacres.

But the spread of land occupation was so slow at first, that by the end of 1810 (which year closed the life of our first Governor) only 5,009 acres had been taken up; but during the next decade of this century it was more rapid, and 73,770 acres more passed into private possession. Still the country itself did not make much progress; indeed, it was not until the termination of what may be called the *first* period of bushranging, by the complete disruption of the band led by the notorious Michael Howe, and the destruction of himself on the 21st of October, 1818, was there anything like security in the land. Under such a curse as this was, it was impossible for the Colony to advance, for such at one time was the alarm created by the power of these vagabonds that we are assured, not only by Wentworth and other writers, but also by the Imperial Commissioner Bigge—whose Report on the condition of the Colony was presented to the House of Commons in June of 1822—that the settlers were at one time driven in from the interior for safety and shelter to Hobart Town. (See page 108, First Report.) But with the annihilation of these freebooters, emigration from England commenced in earnest, and occupation was rapid enough afterwards, excepting during the nine years that followed the ending of 1843, when the Government seems to have almost absolutely interdicted the taking up of our lands; for during all this time only 26,760 acres were alienated. But, passing over this fact, about 4,000,000 of acres are now in private hands, comprehending not less than about 22,000 transactions of grant or purchase, besides those relating to town lands, which are practically past numbering without great research. About five-sixths of these four millions of acres lay either amongst "open forest," or wholly

unwooded land, and chiefly within the basins of the two principal rivers of the Colony and their many affluents, namely, the Tamar, which discharges into Bass's Straits in the north, and the Derwent into Storm Bay of the south; the rest lay in the "heavy forest lands," and on lines of drainage quite separated from these rivers.

Most of our open forest land is grassy, and is used for pasture only, and contributes yearly to the markets of Europe about five or six million pounds of wool, besides a large supply of stock for slaughter, for local consumption. There are also more than a score thousand horses, and about five times that number of horned cattle in the Colony. The area of land under tillage is about one third of a million of acres, yielding such a profusion of dairy, orchard, and ordinary farm produce that after supplying the local markets a great deal is left for exportation. The chief part of the grain of the Colony is grown in the north, where dairying is also most extensively followed; but in the south many industries are carried on, which are hardly known in the other quarters, and which are more profitable than grain-growing. Thus the great consumption of English fruits and preserves in all the Australian Colonies is mostly provided for by the people of the south. Almost all the hops that are grown in Australia are also produced here. Malt and leather, too, are more largely manufactured here than elsewhere in Tasmania; and most of the hardwood supplies of the other Colonies go from the south. Hobart Town also maintains a fleet of vessels of about twenty that are engaged in the sperm whale fishery. The cause of grain growing being less followed in the south than the north, is that nearly all our great southern landowners care for little but pastoral pursuits.

Of the area devoted to pasture, a large proportion might be tilled, and doubtlessly will be as the markets around us enlarge; and if there were any inducement to break up the grass lands, I should say that a million of acres could be very speedily put under the plough, as there is certainly that breadth of land in the basins of the Tamar and Derwent alone, naturally either open or so sparsely wooded that the cost of preparing it for cropping would not be considerable: this is especially the case with the land in the first-named river basin. Any one who ascends the eminences that partly bound the principal vale of settlement in the north, which has the great meridional range on its west, and the Benlomon chain on the east, will not dissent from this statement.

HOMESTEADS.—The homesteads of all the great landowners in both north and south are of the most substantial and even costly

description, and not of the small farm-house sort at all; and a few, but only a few of them, are even almost palatial, and are furnished interiorly in the manner of those of the best class of country gentlemen at home, and rarely without every convenience of out-buildings and excellent gardens, many of which latter are very ornamental. These establishments are most generally planted near to some one of the rivers, with which this country abounds, or by some low-lying inland lagoon, as our lesser lakes are called, and their home landscapes are very generally Arcadian. The reputation of the proprietors of these residences for hospitality is proverbial, and in all my wanderings through the country, I can call to mind no instance of incivility amongst this class—no prying into your business in the district, and no topics introduced, such as politics or religion, that might give offence to a stranger guest.

NATURAL DRAINAGE.—The rainfall of the country is returned to the sea by many rivers, of which the largest, and on all accounts the most important, are the Tamar and the Derwent. The first-named of these streams drains the greatest expanse of country, but the latter, I believe, conveys the largest volume of water from the land, the areas dried by each being respectively about 2,800,000 and 2,300,000 acres. Both have numerous affluents. The courses of those that form the Tamar* lie generally in lower and drier regions than those of the Derwent, but they pierce, so to speak, into many districts, and the head waters of some of them are to be met within half-a-day's ride of the embouchure of the great south river, that is, at about thirty-four miles from the capital city of the country, the tributaries of the two rivers quite overlapping each other. In the eastern districts of the Colony one of its supplies is met with at barely six miles from the seashore, that is, near to George's Bay, while in the western ones some of them almost touch the valley of the Mersey, or more than half-way between the east and west coasts. The chief affluents are the North and South Esks, each having many sub-tributaries, of which the Lake River and the Meander are the largest.

About fifteen other considerable rivers fall also into Bass's Straits, north coast, of which the largest are the Leven, Forth, Mersey, and Ringarooma. The whole fifteen are bar-mouthed, and therefore closed against all vessels except those of light draught; but

* The Tamar itself is not properly a river, but only the estuary of the North and South Esks and their many supplying streams, but the expression is generally applied, in a collective sense, to all the waters that flow into it.

the Tamar proper is an estuary navigable by ships of large burthen up to Launceston, forty miles from the sea.

All the rivers that pass into Bass's Straits, as well as their minor supplying streams, originate in numerous hill ravines, one branch only of the Tamar descending from the Lake District, as the northerly and more level part of the great meridional range is called. This is the lake river that drains off the overwash of the double Lake Arthur, of 8,000 acres, and of Wood's Lake, also of 2,000 acres more.

These water-courses, passing through hilly districts, have all highly inclined channels (which feature is common to all Tasmanian rivers), and at points never far inland cease to be navigable entirely, even by boats, and generally within six or eight miles of the coast. There is, however, a good trade done at several of these northern streams, principally with the Colony of Victoria, which is carried on by vessels of such draught of water as can cross their bars at high tide. The rivers that fall into the sea on the east coast are inconsiderable.

From the difficulty there is of getting into the country that faces the western coast, it is less perfectly known than any other part of the Colony; but several first-class rivers, that are collected in the mountainous and wide marshy tracts of that quarter, flow into the Pacific over this shore, of which the Arthur, Pieman, Macintosh, King, Gordon, and Davey are the chief, each discharging a large body of water. They are at present of no commercial importance; for in these districts, bordering on a coast-line two hundred miles long, I do not believe there are two dozen people altogether, and the exports are confined to a few craft-loads of the wood called Huon-pine.

From the south-west cape to a headland of Tasman's peninsula, called Cape Pillar—a distance of about 110 miles—the coast has a general easterly direction, but it is so much broken into bays, and by strangely-shaped peninsulæ, that this is only a very imperfect description of its trend. Its configuration is highly irregular, and can only be understood by reference to a map. Some of the best harbours in Australia are met with on this ever-varying coast, and two of the largest rivers of the island, and many lesser ones, deliver the drainage of almost a fourth part of Tasmania over this portion of our coasts: these two are the Huon and Derwent.

In the present imperfect state of the survey of the Huon and its branches, it is almost hazardous to give even an approximate estimate of the extent of its basin. I do not imagine that it covers

nearly a million of acres, but so great is the rainfall, particularly in the country of its head-waters, that I believe its volume is little less than that of the Tamar, which carries off the storm-water of thrice its area. The main stem of this stream originates in some of the great marshes of the quartz lands of the south-west, and, after a course of thirty or forty miles through treeless districts, it suddenly enters a tract of forest so dense as, I presume, is not to be easily matched in any other country. Trees of growth absolutely gigantic, and an underwood so rank as to be penetrable only with great difficulty, then abound nearly everywhere, and all its chief branches pass through similar woods and thickets. About its estuary and a little above it are many homesteads of the downright hard-working class, their houses being generally of a very unpretentious description, quite the reverse of those of the great flock and landowners of whom I have spoken above. This river eventually falls into D'Entrecasteaux Channel, which separates the large island of Bruny,* (improperly called Bruni) from the mainland.

The Derwent, which is the only other member of the river system of Tasmania that I shall speak of, carries off the water of about 2,300,000 acres, in which expanse is included the larger portion of the lake district that lies on the high central plateau of the great water-shed of Tasmania. Many large sheets of water, and a countless number of lesser ones, stand on this tract—such as are called lagoons in these Colonies. They cover, unitedly, about 75,000 acres, of which the Derwent receives the overflow of 65,000, and the Tamar the rest. Of the chief of these lakes it will now be necessary to speak, as any account of the Derwent that omits to notice them must be an imperfect one.

LAKES.—The largest of these reservoirs, in extent of surface but not quantity of water, is the Great Lake. Its length, by actual survey, is thirteen miles, its maximum width is eight, and its average three-and-a-half. It spreads over about 28,000 acres, and its elevation is about 3,800 feet. It is nearly encompassed by rich pasture lands, that are open and generally level on its western shores, though broken at one point by a basaltic peak, called the Split-Rock Tier, which, I should think, rises 1,200 or 1,500 feet above the lake level. It is not a deep lake, and is believed not to average more than a few fathoms. It gives birth to a river called the Shannon, only a sub-tributary of the Derwent, uniting with a large stream called the Ouse, before reaching the first-named river.

* On the charts published by the French Government of the coasts about the Huon, in 1793 I think, from the surveys of Admiral Bruny D'Entrecasteaux, he there spells his name as I write it.

The sister lakes, Sorell and Crescent, lying south-easterly of the Great Lake, are nearly close together, and are united by a narrow channel. They cover 17,000 acres in all. Like the Great Lake, they lie in the midst of grassy lands, though less open and level. The beautiful eminences called the Table Mountain and Mount Franklin rise almost from their margins. I do not know the height of these lakes, but suppose they are not less than 3,000 feet. A small, sluggish river, called the Clyde, issues from them. These waters more abound with wild fowl (ducks, teal, and black swans) than any lake that I am acquainted with. I may say, *en passant*, that, excepting these two, our lakes are not much resorted to by water-fowl, which seem to me to prefer the river estuaries to the lakes.

Lake Echo, which stands as nearly as may be, on the central point of Tasmania, spreads over 8,000 acres, and gives rise to a good sized stream called the Dee. The height of this lake is unknown to me, but must be about 3,000 feet.

Lake St. Clair has an expanse of about 10,000 acres, but as it has not been surveyed, this is only a guess. It is of vast depth, a line of 100 fathoms hardly reaching the bottom in many places; and its bulk of water is believed to be more than all the other lakes together. Its height is slightly below 3,300 feet. It is nearly surrounded by beautiful basaltic peaks; and is more admired for its scenery than any other: for myself, I think its beauties have been a little over extolled. The main stem of the Derwent proceeds from it. The land in the neighbourhood of its shores is neither good nor grassy, but a short distance away—at King William's or the Navarre Plains—it is both. It is about 108 miles from Hobart Town, and I should have said that the Great Lake is eighty.

Having spoken in another place of the double lake Arthur, that lies on the same plateau as those just mentioned, I shall not again refer to it, except to say that its elevation is very slightly under 3,400 feet.

The atmospheric temperature of all the lake country is of course lower than the ordinary pastures of the Colony; and though largely occupied by flocks during six or eight of the warmest months of the year, they are generally removed to the lower pasture grounds about April or May. None of our landowners reside here, their flocks being entrusted to their shepherds, who are occasionally visited by their masters. A few of the latter have good cottage residences on these elevated runs, for their own use during these visits, but this is not the rule.

The two largest branches of the Derwent, namely the Ouse and Nive, do not come from any large lake, but from a number of smaller ones.

It is worth remarking that all the eastern supplies of the Derwent are lake water streams; and its western ones, with one or two very minute exceptions, are collected in mountain ravines.

The native names of the Tasmanian streams have not been adopted even where they have been preserved, except it be the Ringarooma, which I take to be of the nomenclature of the primitive inhabitants. Mr. G. A. Robinson, the captor of the native tribes, records three of them in his official letters. He says they called the Pieman's River, Royenrein; the Nive, Trarlerkumbiner; and the Ouse, Lairmairernerpair, which two last do not seem to be much better than our own, in point of euphony at least.

It is usual in speaking of the very abundant water supplies of Tasmania, to connect the subject with that of a general scheme of irrigation; and some thousands of pounds have been spent or squandered in useless surveys for this purpose, all of which has been thrown to the winds. From extensive observations, I could say a little on the subject myself; but as I do not believe that any national system of irrigation will be attempted in the Colony during the next five centuries, it would be only wasting time and thought to write about it.

ISLANDS.—Of the sixteen or seventeen millions of acres of which Tasmania consists, about a million and a quarter belong to its off-lying islands. Of these the largest lie in Bass's Straits, the wide channel which separates Tasmania from Australia. The chief of these straits islands are Flinders, King's, and Cape Barren. The first-named has a surface of more than half a million of acres. The area of the second is, I believe, much understated at 270,000. Barren Island is over 100,000 acres. There are many other good sized ones in this strait. Of these islands I have too little information to trust myself to say much. Several of the lesser ones abound with countless myriads of seafowl, but which, from indiscriminate destruction, are decreasing. Many hundreds of thousands of them (I am speaking quite without exaggeration) are yearly destroyed for their oil, carcasses, and feathers. The most numerous of these waterfowl are of the species called Sooty Petrel, or, locally, Mutton Birds. They are migrants. From the great length of their wings they cannot rise from the surface of their breeding-grounds, but walk from them down to the sea; and in the proper season are trapped by thousands in trenches cut across their paths, into which they fall and are taken. The oil is said to

be expressed by a cruel process while the bird is still living. Their eggs are taken in numbers almost too vast for belief; and I was told by the inspector of police, five or six years ago, that in the preceding season 300,000 were taken from one "rookery." Great numbers of the fur-seal were formerly killed on certain rocky islets of the Straits, but are not now much sought after by the straitsmen, who, I am told, have settled down into such habits of idleness, as hardly to undertake anything requiring much exertion. With the exception of some Europeans, who have lately settled amongst them, the few inhabitants of these islands are a half-caste race, sprung from the veriest miscreants of convictism and black women, kidnapped from the mainlands of Australia and Tasmania. Of this race there were eighty-four* individuals living in 1872, on the group of islands lying off the north-east point of Tasmania; but whether there are any on the islands off the north-west, I have no information.

It would be worth knowing, if the information could be obtained, to what cause or causes it is due that this race does not seem to increase in the least. According to Mr. G. A. Robinson, mentioned before, who visited all the islands of the north-east group upwards of forty years ago in his official capacity as Protector of Aborigines, there were then twenty-nine families living on them; that is to say, twenty-nine male Europeans, all of whom he mentions by name, having amongst them, he says, "not less than fifty aboriginal females, kept in slavery on different islands" (Report, November 20th, 1830), of whom these eighty-four half-castes are the descendants. But in the absence of any intelligence on this subject, I must content myself with a simple statement of the fact.

There are but three considerable islands on the southern and eastern shores: these are Bruny, Maria, and Schouten.

The first of these belongs to the greenstone formation, but has been so overlaid by clayslates, sandstone, &c. that it is only partially fertile. Maria Island lies on the line where the greenstone and granite meet. It is in no way superior to Bruny. Its higher parts are said to be 3,000 feet above the sea. Its value has been greatly overstated. The island called Schouten lies wholly within the granitic region. I have not explored it, and speak of it from hearsay only. It is noted for its beautiful scenery and excessive sterility: the former I can vouch for. The areas of these islands are—Bruny 90,000, Maria and Schouten 24,000 and 7,000 respectively.

* "Church News," April 1st, 1872, page 248.

Many of the smaller islands around our coast are eminently fertile and prolific.

HARBOURS.—The West Coast of Tasmania has no very good harbour, except Port Davey, which is excellent. Macquarie Harbour, also on the west, which is the estuary of the Gordon and King Rivers, is bar-mouthed, and very narrow at the entrance, having also many shoals within it.* It may be entered by vessels whose draught does not exceed eight or nine feet. On the north coast line there is but one good one, namely, the Tamar. The Mersey is the next best, safe even at low tide for vessels of eight feet; but as the tides in Bass's Straits rise several feet higher than in the south, vessels of 150 tons or more enter it. The other ports of the north are suited only for smaller craft. Some considerable portions of the east and south-east coasts are not well provided with shipping places, but Spring Bay and Port Arthur are exceptions, and have good shelter, ample room, deep water, and no danger. The southern shores of the island abound with shipping-ports of the very best descriptions. D'Entrecasteaux Channel, the estuaries of the Huon and Derwent Rivers, Norfolk Bay, and an almost countless number of lesser but excellent ports, taken together, would accommodate all the ships in existence.

CLEARING HEAVILY-WOODED LANDS.—The following account of the process of clearing this description of land, into which settlement is fast advancing, was written by me, and contributed to a local work, called "Walch's Tasmanian Guide-Book for 1871" :—

"These lands are now, as they most probably ever have been, covered with forests of a very extraordinary growth, and have also a close underwood of lesser trees and beautiful shrubs that fills up every foot of space there is between the superior trees, all of which latter are of the Eucalyptus class (and to whose decay I doubt not it is that some considerable portion of the vast accumulations of rich soil that cover the surface to depths varying from one or two to about six feet owe their origin). Thickly wooded as these districts are, they are greatly prized by our colonists, on account of the wonderful fertility of their soils, and their consequent productiveness, when once so cleared, as to render them fit for breaking up; which clearing is, in these days of hurry and rapid progression, about the most imperfect and primitive operation that human ingenuity ever devised, and such as an English farmer, accustomed only to excessive neatness in everything around, could have no conception of. That tillage should be

* A low rock stands just in the Gates, as the entrance was, and perhaps still is, called.

actively and even successfully carried on, on ground from which nothing but the "scrub" has been roughly and most imperfectly cleared off, and such fallen trees cut out of the way or turned aside as would otherwise obstruct progress altogether, whilst hundreds of Gum-trees, as tall and almost as massive as "the Monument," are left standing everywhere, only killed by the process of "ringing"—which is done by cutting a deep notch all round the stem, so as to stop for ever the upward flow of the sap—is one of the marvels of Tasmanian farm progress. A farm in these quarters is an object worth visiting, exhibiting, as it does, agriculture successfully advancing in the midst of discouragement and difficulties, such as are to be found nowhere else; so fertile is the soil and so productive of vegetation that imagination half disposes the traveller who visits these strange places to believe himself living in those pre-adamite ages of the world's history that just preceded the formation of the great coal deposits of the world, when the earth, it is believed, yielded a vegetation so vigorous as is not now to be found in nature.

"In preparing these lands for cropping, the first process is to knock down all the underwood, leaving it where it falls till pretty well dried by wind and summer heat; everything up to about 18 inches thick is thus felled. Two, three, or four months afterwards, a favourable day is chosen for a burn off, and the vast mass of half-dried underwood, being lit to windward in many places, a furious combustion ensues, in which everything, except the largest stems and branches of the scrubwood, and the standing but now dead gum-trees, are swept away literally like wildfire. The unburned stems, &c. are next collected round the larger stumps of the underwood and destroyed by burning. Such of the rubbish as will not easily consume, namely the fern-trees, and other not very inflammable woods, are rolled together to the edge of the clearing for a fence—a rude, curious-looking one, indeed, but pretty effective. Breaking up the land with the heavy hoe then commences, and a crop, usually potatoes, is got in, amongst such a wilderness of small stumps and huge logs as is odious to look on; most of the larger of these stumps are grubbed up as opportunity offers, and many when partially rotted, say in a year or two, are dragged out by bullocks chained to them. The process of clearing, such as it is, is completed in about three years, the works of cropping and marketing going on actively almost from the first, and clearing constantly extending by the process above described."

PRODUCTIVENESS OF THE SOIL.—"The lands which support such forests as those faintly described above yield at first in favourable

years not less than forty bushels of wheat to the acre, and other crops in proportion, notwithstanding that the processes of manuring and fallowing are very generally ignored here. A farmer in these wilds relies for success on the excellence of the soil, the warmth and moisture of one of the kindest climates in the world, and not on artificial aids such as I have mentioned; and his confidence is not misplaced, and he keeps on taking crop after crop from the land, and never assisting it until it is finally worn out, which is generally accomplished in ten or fifteen years."—*Walch's Guide*, page 25.

BUSH DWELLINGS.—"Where wood so abounds, as it does in these quarters, the homesteads of the farmers are of wood, of course, and are invariably built by themselves, for they turn their hands to everything with a hearty will that never seems to forsake them. These edifices, so unlike those of the great landowners of the pastoral districts (which are mostly all that comfort or luxury could desire) are generally in exact harmony with the incomplete clearings that surround them. Since the passing of the Waste Lands Act, in 1858, about a thousand of such homesteads (mere wigwams) have been planted in the wilderness."—*Walch's Guide*, 1871.

These houses are usually of rough hewn wood, covered with sheets of bark, either tied on to round poles that serve for rafters, or held down with large stones or logs. The chimneys are rude, like the walls, and generally of wood also; they are always small, seldom even two-roomed, hastily put up, unfloored, and lighted from the door more often than from a window. These humble dwellings are, however, replaced in two or three years by more commodious ones, that is, after the privations inseparable from first settlement in such places are passed.

I said in my former Paper that there were, according to my judgment, 4,000,000 of acres of heavily-wooded land in Tasmania; but I hope it will not be understood that I meant to say that all this area was suited for occupation: far from it, for no portions of the greenstone region are more densely timbered than the mountain sides; and large areas of what we call myrtle forests—the beautiful myrtle-trees growing under the Eucalypti, very generally, but not always like those described near the upper waters of the Huon—are, to my mind, at best, only inferior.

THOROUGHFARES OF THE COLONY.—The roads of all the old settlements are either good or very good. The principal thoroughfare of the country, called generally the "Main Road," which connects the two chief towns of the Colony, Hobart Town and

Launceston, and several others, is 121 miles long, is a masterpiece of construction; and the branch roads that lead from it into settlements that are thirty or forty miles off, are nearly as good; and, as a usual thing, they take the direction of the natural drainage. It is curious, as well as instructive, to observe how the occupation of the land has followed along them.

RAILROADS.—There is at present only one railroad open for traffic in Tasmania; it is 45 miles long, and passes through a magnificent district, and connects the sea-port of Launceston with several flourishing inland towns, of which Perth, Longford, Westbury, and Deloraine are the chief. Another, which will unite Hobart Town and Launceston, is now in formation, of about 125 miles' length. I omitted to notice that the Launceston and Deloraine line is being extended to a seaport called Latrobe, on the Mersey Harbour, a distance of 30 miles from Deloraine, of which 17 are completed. The total length of railroads in Tasmania, either constructed or in actual construction, is about 200 miles. There is telegraphic communication between the two chief sea-ports and all the principal interior towns. The postal arrangements of the country are all that could be desired.

LANDSCAPES.—Where the surface is so varied as it is in Tasmania, there is necessarily every variety of scenery between the Alpine and Arcadian; but here, again, much depends on the rock formations of the districts, and it is certainly grandest in the quartz regions of the west and south-west, and least attractive in the granitic country of the north-east. The Quartzose Mountains are eminently beautiful, and the country in which they lie being very generally open, its landscapes are seldom obscured by the intervention of trees, which elsewhere are often so annoying to the traveller in the wilds of Tasmania by obstructing observation. I have passed through and through the West from many points, and, notwithstanding the difficulty of approaching it, and the fatigue of bush travelling afoot through wholly unoccupied territory, I retain the most agreeable recollections of it. No verbal description could convey even a faint idea of the beauty of the scenery hereabouts, which could only be correctly delineated by the painter or photographer.

An immense extent of the Basaltic country is also famed for beauty, and is as well known to Australian tourists (who flock here every summer to escape for awhile the oppressive heat of their own homes) as Switzerland is to the English. But this does not quite apply to the mere hilly districts of the south-east, or to some few of the level ones of the north. But the coast lines of the

former, as they approach the south, are very indented and pleasing. The whole of the southern shores, though broken and rugged, are very prepossessing, and from any clear-topped eminence about Hobart Town, say Mount Wellington or the lesser elevations called Mounts Nelson and Rumney, fully 500 miles of the most tortuous of shore-lines are seen at once.

The granitic tracts in the north-east and east are rather tame and wearying; but the island and peninsula, called collectively the Schoutens and Maria Island (where the granite and greenstone lie conterminously), come not within this remark, both of them being very beautiful objects.

DISCUSSION.

Mr. EDDY described on the map the position of the forests, and spoke of their density, remarking that it was very unsafe to enter very far in, as it was utterly impossible by any means to discover the position in which you were. As to the Blue-gum tree, it appeared to be an antidote to malarious fever. It grows more rapidly than any tree known. It was being planted by millions in California, he had been told, and it was growing most luxuriantly in Corsica, Sardinia and Algeria, and in the South of France, about Cannes. The first person to introduce it there he believed was the late Lord Brougham. One of their members, Mr. Archibald Hamilton, was now staying there, and at his (Mr. Eddy's) request was forwarding him some seed. It appears from what he says that the forests there are of very young growth, but the Institute had in the docks at the present time seeds from Tasmania from old trees, which would no doubt grow. This Blue-gum was one of the most valuable timber woods in the world. He had lately the pleasure of hearing a lecture by Professor Bentley, and he bore out all that had been said of it, especially as to its rapid growth and value for replenishing forests. It will play a great part in the future history of the world in restoring forests where they have been recklessly destroyed.

The CHAIRMAN said he could confirm the statement that it was of rapid growth, as he had seen trees only a year old 10 feet high. They were in their second year, and were 40 feet high in four or five years.

Mr. EDDY remarked that it was called in Tasmania "the builders' tree," for they plant these Blue-gum trees as a shelter to new buildings. He had been asked whether it would grow in England. He had seen some fine trees in Dartmouth, he supposed 35 feet

high, and had been told they were planted by an Australian, and could not be more than seven years of age. About two years afterwards there was a wet season, and they died. They could not flourish here. It was not that the winter was too severe, because the winter in Tasmania was very much more severe than the winter we have just passed, but the summer was not hot enough to ripen the wood.

Mr. J. D. WOOD mentioned that the aroma is an antidote to malaria. He was in a steamer on the coast of New Zealand, half a mile from the shore, and, noticing a very strong smell, remarked that it must be the scent of the Blue-gum. His friend said it could not be, as it was not indigenous; but on landing they found that it was.

Mr. F. WALFORD said he believed it was the power of absorbing water that caused it to be so sanitary. He had seen it planted in marshy places, and had seen it dry them completely.

The CHAIRMAN said they planted it in California because it did not mind the dust.

Mr. VAN DER BYL remarked that he had seen it in South Africa, where they had tried every tree, but had not been able to get those of any other species to grow upon their estates. He had a brother who had tried the Blue-gum tree, and that was the only one that would thrive.

The CHAIRMAN asked whereabouts in South Africa?

Mr. VAN DER BYL said at Hurst River, and also higher up. No other tree would grow there.

The thanks of the meeting were then voted to Messrs. Hull and Calder for their interesting Papers, and the proceedings terminated.

AN Ordinary General Meeting of the Institute was held at the Pall Mall Restaurant, on Tuesday, 26th May, 1874, His Grace the Duke of MANCHESTER, President, in the Chair. His Grace being obliged to leave early in the evening, Mr. J. A. YOUL, C.M.G., was then voted into the Chair. The paper for the evening was by Mr. FREDERICK YOUNG, on

NEW ZEALAND—PAST, PRESENT, AND FUTURE.

EARLY HISTORY AND NATURAL FEATURES.

Nestled in the bosom of the Pacific Ocean, "more isolated than any other of equal extent," there is a land of little past history, but of a great future—

"The sea-girt El Dorado of the South."*

Distant from New South Wales about 1,200 miles, New Zealand, one of the most interesting, valuable, and progressive portions of our splendid Colonial Empire, may be reached from thence by steam in five or six days. It was probably uninhabited till within late centuries of the history of man, and then but thinly populated, principally along the coasts and the banks of the navigable rivers. The primeval inhabitants have left nothing to record of the deeds of the past. No monuments, no tombs, no ruins of any kind, to mark the state of man's gradual upward and onward progress. Although with justice regarded as the most intelligent race of savages in the world, as they were savages from the first, so they still remained. But while they appear, like all savage nations, to have made so little advance, they possessed in this beautiful and bright land, a country in which nature seems to have been singularly bountiful. Here are to be found a most genial climate and fertile soil—scenery of the most charming and varied character: grand mountains, reaching the region of perpetual snow (some of the giants among them, like Raupahu, measuring 9,000 feet, and Mount Cook 13,000 feet, above the level of the sea); magnificent forests, containing trees of gigantic growth, evergreen plants, and flowering thickets of brilliant colour and surpassing loveliness;

* A. Domett.

splendid harbours and navigable rivers—the largest, the Waikato, flowing through Lake Taupo, which is 25 miles long.

Such is a brief outline of some of the natural features of New Zealand. It bears a strong resemblance to England. Its insular position, its climate, moist but healthy, and especially adapted to the Anglo-Saxon race; its soil, and the whole form and structure of the country; its extensive line of coast, suited to the habits and ideas of the first maritime nation in the world; without dangerous animals, without poisonous plants, rich in mineral treasures, where horses, cattle, and sheep thrive, and whose fertile soil is admirably adapted for the pursuits of farming and agriculture,—all suggest a close comparison with the mother-country. Accident, rather than design or scientific research, led to the discovery during the last few years of its mineral treasures of coal, gold, copper, iron, &c. Of these I shall speak presently.

One of the peculiarities of New Zealand is the almost total absence of indigenous animals. The native rat, and a species of green lizard, from four to six inches long, were the only quadrupeds observed by Captain Cook on his first visit there. On his departure he left a number of animals, and these increased in a rapid manner long before the country became a British Colony. Since that time the bones of an enormous wingless bird, the Moa (*Dinornis giganteus*), have been discovered. This must have stood nine or ten feet high, but it is now quite extinct. Its present small representative, a bird of the same kind, still exists, the Kiwi (*Apteryx*); but this, too, like its gigantic prototype, is fast disappearing.

New Zealand consists of two large and several small islands, extending from south-west to north-east, and lying between 34° and 47° south latitude, and 166° and 179° east longitude. The extreme length of the islands is about 1,200 miles, and their breadth varies from 300 miles to about 100 on the average. It may be roughly estimated to be about as large as Great Britain and Ireland, containing an acreage of about 70,000,000—some 50,000 acres only less than the British Isles.

THE MAORIES.

Its aboriginal inhabitants, the Maories, appear to be of Malay extraction, improved both physically and morally by its fine and bracing climate. They always relate that the race from which they are descended arrived in New Zealand, about 500 years ago, from the Hawaiian, or Sandwich Islands. There seems to be reasonable foundation for believing this tradition. The aborigines of the

two island groups are similar in race, language, and character. The distance, 3,900 miles, it is true, is long; but it has been observed that the winds, which prevail nearly all the year round, are very favourable for making a passage thence to New Zealand; and this voyage, therefore, is by no means impracticable in such smooth waters as those of the Pacific Ocean.

The Maori is emphatically a specimen of the "*noble savage*." Tall, athletic, and powerful in figure, and gifted with great natural intelligence and vigorous intellect, he is indeed a most favourable representative of uncultivated and primeval man. Fluent in speech, of warm imagination, of quick perception, and rare powers of observation, he possesses the attributes of true oratory. He is frequently not unwilling to exercise his powers of eloquence, when any important event connected with his tribe calls it forth, before an assembly of his people. He is spirited, brave, and independent, and with a strong feeling of nationality, in spite of the characteristic cruelty of the savage to his enemies, which caused him to indulge without compunction in the horrible and revolting crime of cannibalism. We can scarcely feel surprised at the struggles he has made against us—entailing on us such troublesome and expensive wars since we came to his country to colonise it—to throw off the supremacy of England, and to maintain the ascendancy of his race. Surely these efforts of the poor Maoris, inconvenient and disastrous as they have been to ourselves, should excite some sympathy from us on their behalf. They have been fighting to endeavour to preserve their race from utter extinction under the advance of the white man. After centuries of undisputed sway of the primeval wilderness, they witnessed the spectacle of a number of astute strangers spreading over their country, and settling down on their lands, which they had persuaded them to alienate for ever for such trifles as a few muskets, a hatchet, a bale or two of blankets, or a string of beads.*

Let us hope that the period has now arrived when we have seen the last of these miserable wars with the Natives. It is a curious illustration of the progress of the civilisation we have introduced among them, that several of them now hold seats in the General Assembly of New Zealand, and have therefore a voice in

* I am aware that in this statement I have omitted to refer to the "*Native Reserves*," which formed an integral part of the original plan for colonising the country promulgated by the New Zealand Company. This is true; but, after all, there can be no doubt that the prevailing idea of the projectors was to make the best pecuniary bargain possible for themselves, and to get large tracts of land at the least money cost from the natives.

the government of the country ; that in the War Office list of the British Army are to be found the names of Maori chiefs among the officers of the Colonial forces ; that they are still the largest owners of territory in the country ; and that in one district alone, that of Napier, they have leased their grass lands to the squatters for a rental of £26,000 a year.

Notwithstanding, however, these satisfactory changes in the relations between the Natives and the Colonists ; and while fighting and bloodshed have given place to the peaceful and beneficial results we now see, the same process, which seems to be *inevitable* wherever civilisation comes in contact with barbarism,—the cultivated man with the untutored savage,—appears to be stealthily, but surely, going on in New Zealand. The Maori is rapidly passing away. When it first became a British Colony the native population was estimated, from the best information, at 100,000. The first census was taken in 1856, when the number was found to be 53,700 ; and, according to the last census, in 1872, they are now reduced to 36,359. If this astonishing rate of decadence continues, it is evident that in a very few years the Maori must altogether disappear.

It is true the war they waged against us, which cut off the flower of the Maori population during the ten years it continued, has ceased, but there does not appear to be any well-grounded expectation that any favourable circumstances may occur, or any ameliorating influences take place, to arrest this decay of the aboriginal race, which, at no distant day, seems doomed to extinction. A distinguished author recently says of the Maoris : “ At the touch of the higher race they are poisoned, and melt away. There is scope for poetry in their past history, there is room for philanthropy as to their present condition ; but in regard to their future there is hardly a place for hope.”* At the same time, it may interest the philanthropist to know that great efforts are now being made, both by the Government and by the Maoris themselves, to stay their destruction. Let us hope that the enlightened mode of administering native affairs, as now practised, may be successful, and be the means of preserving the remnant of the Maori stock, which forms such an interesting specimen of the aborigines. We must not forget that they are confided by Providence to our care, and appeal to the just sympathies of Englishmen, who have been the cause of the loss of their independence, and compelled them to become subjects of the British crown.

* A. Trollope.

AUTHENTIC HISTORY.

I proceed to take a rapid glance at the principal events in the known and authentic history of New Zealand. Discovered in the year 1642 by an enterprising Dutchman,—the bold and adventurous Tasman,—he appears to have entertained anything but a favourable impression of the country, or of its inhabitants. Nor is this very surprising, for on landing they displayed great hostility to his party, attacking and killing many of them. This happened at a spot which, in consequence, obtained the unenviable name of Massacre Bay.

For more than one hundred years after Tasman's discovery the country seems to have attracted little or no attention in Europe. In the year 1769, however, it was visited by the celebrated navigator, Captain Cook. He landed, and took possession of the country on behalf of Great Britain, being fully persuaded of its value, and its importance for colonisation and trade. Cook subsequently visited New Zealand in 1773, and 1777, giving in the pages of his fascinating "*Voyages*" glowing descriptions of the country and its climate. The formidable hostility, however, apprehended from the native inhabitants, who were represented as very numerous as well as ferocious, delayed the adoption of any measures for carrying out the work of colonisation.

The Dutch, meanwhile, appear to have abandoned all claims to the country by right of discovery; for, at the Treaty of Vienna, in 1814, England's right to New Zealand was acknowledged by the European Powers.

This year marks an interesting epoch in the history of these islands. It was on the 25th of January, 1814, that, under the auspices of the Church Missionary Society, the Rev. Samuel Marsden (already well known for his missionary efforts in New South Wales) landed there, with four other missionaries, their wives, and families, and laid the foundation of the first mission in New Zealand. The chief settlement was made at the Bay of Islands, which remained their head-quarters; but in time the mission extended over a great portion of the eastern coast. In this manner, step by step, the Natives became partially Christianised, and were thus prepared for the eventual colonisation of the country by England.

While the missionaries were thus engaged in the work of civilisation, the harbours of New Zealand became the resort of various trading adventurers, and people connected with the whale and

other fishing expeditions, attracted to its coasts, especially, by the sperm whale, which was found there in great abundance. Many of the sailors and others were induced to remain and settle among the Natives.

This condition of affairs at length attracted the attention of the Government at home, who, in order to assist the Natives in maintaining their authority, in the year 1833 gave them a national flag, and appointed a Commissioner,* under the control of the Government of New South Wales and of the Foreign Office, to reside among them. This stimulated a desire to settle in the country, and to acquire possession of land, both in England and Australia.

NEW ZEALAND COMPANY.

Many schemes for colonising the country were at this time projected, but none of them were successful. At last, in the year 1839, a company was formed in London for this purpose, and from that period dates the practical and systematic colonisation of New Zealand.†

Vivid in the minds of some of those who, thirty-five years ago, were associated with the guiding spirit of this great enterprise, the gifted author of the “Art of Colonisation,” Edward Gibbon Wakefield, are the memories connected with that brilliant and successful effort for making this fair and fertile land into a British Colony.

Well do I remember the enthusiasm which the project of that master mind awakened among the high-born, the wealthy, the educated, and intelligent at home, and the ardour with which a

* Mr. Bushby.

† The first attempt of the kind was made by a number of gentlemen who formed themselves into a Provisional Committee about the year 1825. They were, Mr. J. G. Lambton, M.P. (afterwards Earl Durham), Chairman; Mr. George Lyall, M.P., Deputy Chairman; Mr. J. W. Buckle, The Rt. Hon. Edward Ellice, M.P., Mr. Ralph Fenwick, Mr. James Pattison, M.P., Mr. George Palmer, Col. R. Torrens, Mr. Stewart Majoribanks, and the Hon. C. Boyle. These gentlemen requested Mr. Lyall to send out a ship to New Zealand, called the *Rosanna*, which sailed in the year 1825 for that country, where certain lands were bought of the native chiefs on the Thames and the Hokianga. The ship returned to England in 1827. It was, however, thus early found that the missionaries were extremely hostile to the colonisation of the country; and the whole scheme was suspended for 10 or 12 years. It was afterwards revived, and brought before the then Colonial Minister, Lord Glenelg, by Lord Durham, and Mr. Lyall, at the instigation of Mr. Edward Gibbon Wakefield; and from thence the New Zealand Company was formed. All the papers giving the details of these negotiations have been deposited, with other documents connected with the New Zealand Company, in the British Museum, where they may be found by anyone who wishes to investigate the details of the history of the first foundation of New Zealand as a Colony of the British Empire.—F. Y.

noble and gallant band of the youthful scions of distinguished families, headed by such names as the "Petres," the "Cliffords," and the "Molesworths," went forth to plant another England in the Southern Hemisphere.

The company itself contained names on its direction calculated to inspire the utmost public confidence, as well from the political influence, as from the wealth, the social standing, and the public spirit of its members, the late Earl of Durham and Charles Buller being prominent and conspicuous among them. But there was one leading spirit, who directed the whole movement: it was Wakefield who turned the wheel of the entire enterprise.

It is not my intention to enter into the merits, or to defend the principle, of what has been popularly designated the "Wakefield System of Colonisation." Whether he was right or wrong in advocating, as he always did, with consummate ability, what he called a *sufficient price* for waste lands;—whether or not, as in the case of New Zealand, the prices originally fixed by the New Zealand Company, varying, as they did, from £1 per acre in Wellington, till they reached £3 in Canterbury, under its offshoot the Canterbury Association (that illustrious guild, with which the names of Lord Lyttelton and John Robert Godley are indissolubly linked) were wise and sound,—still this fact remains, and is unassailable, that several most thriving, and prosperous settlements were established under the Wakefield system, and New Zealand was emphatically colonised by it. It must not be forgotten, too, that one of the cardinal and essential principles connected with his system was the devotion of a fourth, or a third, or some other considerable portion (as the case might be), of the price of the land to the purposes of emigration.

In spite of many failures of detail, which no doubt produced numerous cases of disappointment, and also some considerable disasters, Wakefield's earnest object, and desire, was to carry out in New Zealand the realisation of the political economic doctrine of a thorough union of the three elements of all national wealth—land, labour, and capital. If they could have been brought together in the proper and prescribed ratios from the first, all would have gone well. But, although there was certainly a failure in some respects at the beginning, Time, that grand panacea for remedying temporary evils, and for developing the results of principles inherently sound, has worked the cure; and in no portion of our Colonial Empire has the progress been more marked, or the development more rapid, than in New Zealand. Under the auspices of the New Zealand Company the settlements of Wellington, New

Plymouth (Taranaki), Nelson, Otago, and Canterbury were founded in rapid succession. The first of these (Wellington) was settled by the band of Colonists who sailed from England, 1,200 strong, under the superintendence of Colonel Wakefield in 1839; and the last (Canterbury), received its first settlers at Port Lyttelton in 1851.

The extraordinary energy and enterprise of this great and powerful Company, assuming, as it did frequently, functions more properly appertaining to a Government than to a trading company, aroused before long the attention, and, as it was sure to do, the jealousy, and consequent antagonism, of the authorities of the Colonial Office in Downing Street. Many and fierce were the contentions between these great rivals, prolonged in Parliament through a wearisome number of years, and ending at last in the dissolution of the Company itself, worsted in the encounter with successive Governments and Ministers of State. Opinions will differ as to its policy, its objects, and its management; but its name is historical in connection with the colonisation of New Zealand. It deserves, at all events, a generous recognition, as having been the undoubted instrument of practically effecting the colonising of the country, and preserving it to England at a period when, owing to the apathy and impolicy of our own Government in not openly maintaining our rights of sovereignty, Great Britain was very nearly losing those sovereign rights, which had a narrow escape from passing to the French nation. The late Lord Petre, Mr. George Palmer, Mr. Somes, Mr. Lyall, and my father, Mr. George Frederick Young, took a very active and prominent part at this time in endeavouring to secure this magnificent Colony for England. They purchased and fitted out the *Tory*, which arrived with Colonel Wakefield at Port Nicholson, on August 17, 1839. He immediately planted the British flag there. Forty-eight hours afterwards the Baron de Thierry arrived from Brest, and attempted to claim the same spot for France by climbing an adjacent hill and hoisting the Tricolor. To his dismay and astonishment, he saw the Union-Jack flying on the beach immediately at the base of the hill on the other side of the point at Port Nicholson, where he had landed, Colonel Wakefield having anticipated him.

While the New Zealand Company was thus vigorously engaged in planting its various settlements, the Government, at length roused to action, appointed Captain Hobson as Governor of the Islands. He established the seat of government at Auckland; and in February, 1840, by the celebrated Treaty of Waitangi, proclaimed the Queen's sovereignty over the whole of New Zealand.

This proved not a moment too soon, as a French expedition, fitted out by King Louis Philip, arrived at Akaroa about this time. Had it reached the shores of New Zealand a few days earlier than it did, the South Island would undoubtedly have been claimed on the part of France. Another remarkable incident happened in connection with this question of sovereignty, in which the late Captain Owen Stanley (brother of the Dean of Westminster), of the *Britomart*, played such an important and conspicuous part. While the Treaty of Waitangi was still in negotiation, he heard of the expected speedy arrival of the French expedition. Suddenly sailing one night from the Bay of Islands, where his ship was then lying, to Akaroa, he planted the British flag there, and took formal possession of it in the Queen's name. The French frigate *L'Aube* was lying at the Bay of Islands with the *Britomart*. Finding her gone the next morning, the French commander instantly followed her, with the same object in view on the part of the French king ; but he did not reach Akaroa till four days after Captain Stanley, too late to do anything. The French expedition actually arrived there, also, the day after their own frigate.

After a troubled career as Governor of less than three years, engaged in the perhaps almost impossible task of endeavouring to reconcile the various and conflicting claims, interests, and prejudices of the New Zealand Company, the Colonists, and the Natives, Governor Hobson sank under his responsibilities. He died in September, 1842.

He was succeeded by Captain Fitzroy ; but so serious and complicated were the questions, arising principally in connection with the disputes of the various interested parties on the subject of land, and of the policy to be pursued by the Government between the Natives and the Colonists, that he does not appear to have been able to grapple with them more successfully than his predecessor ; and at length, in the course of another three years of turmoil and angry controversy, he received his recall.

In November, 1845, Sir George Grey arrived at Auckland as successor to Captain Fitzroy. It was a period of serious difficulty and emergency, and the Colony was in want of a man of his great ability and energy to grapple with the complicated question of the adjudication of the conflicting claims which had arisen between the two races, and which had already produced much violence and bloodshed between them. The Maori chief, Johnny Heke, especially had at this time done much mischief by his turbulent and lawless career. The vigorous measures of Sir George Grey, however, soon suppressed the native insurrection. Under his administra-

tion the Colony made considerable progress. It was at this time that the different settlements were formed into provinces, and in 1853 a responsible Government was conferred on New Zealand. The Colony is now divided into eight Provinces, and one County,—Auckland, Taranaki, Wellington, and Hawkes Bay occupying the North Island; Marlborough, Nelson, Canterbury, Otago, and the County of Westland being in the Middle Island.

The Government is represented by a Governor, appointed by the Crown; a Ministry, who form the Executive, and a Parliament of two Chambers. The Legislative Council consists of forty-five members, nominated by the Governor for life. The House of Representatives consists of seventy-eight members, thirty for the North Island, forty-four for the South Island, and four Maori members, whose term of office is five years.

The members of both Houses receive £100 each for every Session, to cover travelling and other expenses.

Each owner of a freehold worth £50, or tenant householder in the country at £5, or in the town at £10 a-year rent, provided he is twenty-one years of age, is qualified to vote for, or to be a member of, the House of Representatives.

Each Province has its own separate local government. The governing power is vested in a Provincial Council, consisting of from twenty to forty councillors, presided over by a Superintendent. Both Council and Superintendent are chosen for four years. Every Provincial Council Act requires the sanction of the Governor previously to its becoming law, which must not clash with the general laws by which the whole Colony is ruled. Previously to the year 1864 Auckland remained the seat of government; in that year it was removed to Wellington.

Colonel Gore Brown succeeded Sir George Grey as Governor. His rule was marked by a fresh and more serious outbreak on the part of the Maories than had yet occurred. For some period this brought the Northern Island almost to a standstill. In this emergency Sir George Grey was appointed Governor for a second time in 1861. The fact of his being again summoned to undertake the duties of this high and responsible office, is as honourable to him, as it is a proof of the confidence which was felt in his ability, and of the meritorious services he had previously rendered to the Colony; but, unfortunately, his advent does not appear to have done much to improve matters. From 1861 to 1865 a costly and desultory war was waged; and even until quite recently the Maoris have continued to be more or less troublesome. The war, however, was at length brought to a conclusion by our troops cap-

turing the most important strongholds of the Maoris. A measure was shortly afterwards carried out by the Home Government of questionable policy, in withdrawing the whole of the British troops from the Colony. This being done at a time when the colonists had scarcely recovered from the apprehensions and alarms excited by the long struggles with the natives, gave rise to the most violent feeling of dissatisfaction and resentment on their part against the authorities at home. For a long time they continued unpacified; and at one time very serious consequences were threatened, imperilling the stability of the connection of the Colony with the mother-country itself. Happily the loyalty of the colonists at length prevailed to soften the bitter feelings which had been excited, and induced them to forgive the slight they felt had been put upon them by a high-handed act of Imperial policy, which even prevented the British Government listening to their proposal to pay themselves for the troops they asked to be permitted to remain in New Zealand for their security and protection.*

At the termination of Sir George Grey's second administration, Sir George Bowen became Governor; and he was in his turn succeeded last year by Sir James Fergusson, the late Governor of South Australia.

RESOURCES AND PRODUCTIONS.

From this brief sketch of the political history of New Zealand I turn to one of the most interesting portions of my subject. The resources and productions, and the extraordinary development, of this rich and beautiful land, form a striking and remarkable picture. Foremost among them (and they may be classed with the most important articles of its commerce) are its two celebrated productions of the vegetable kingdom—the *Phormium tenax* and the Kauri Pine. To me, the mention of the former suggests an interesting reminiscence. In the year 1842, during the very earliest days of New Zealand colonisation, a small pamphlet on the *Phormium tenax* appeared, calling attention to its eminent importance, and pointing out that all that was wanting permanently to continue in our markets a material of inestimable value and inexhaustible supply, was a proper mode of preparing the fibre. This had hitherto been only rudely done by the natives. Time passed. For many years afterwards (it being extremely difficult to prepare the fibre, and no efficient machinery having been then invented for the purpose) nothing was

* I desire it to be understood that I do not wish to impugn the ultimate wisdom of the policy of the Government in this matter, but rather the time and the manner of its being carried into effect.

done. It is only quite recently, indeed, that this appears to have been accomplished with complete success; and a large and valuable trade in the article has sprung up in consequence. The pamphlet to which I allude was written by, and was published under, the joint names of Francis Dillon Bell and Frederick Young. We were both very young at the time, but we were equally impressed with the value as an important article of future export of this indigenous product of a Colony just rising into notice, and in whose success we took a deep and warm personal interest. The *Phormium tenax* is quite peculiar to New Zealand. Its fibre, resembling flax, prepared from the leaves, constituted the first article of barter in the trade carried on between the Maoris with the Europeans. It is of invaluable service to the Natives. It is a flax-like plant, with sword-shaped drooping leaves. The flowering stalk, bearing pink blossoms, contains a sweet honey juice much prized by them. At the root of the leaves is found a semi-liquid substance resembling gum, which serves the Maoris for glue and sealing-wax, and it is also eaten.

The extraordinary tenacity of its fibre is remarkable. It is made into cords, ropes, and straps, and binding of every description. It is indispensable to the Natives, both in the building of their huts and canoes. It is equally useful for the manufacture of their lines, nets, and sails, as well as for mats and woven garments. Of these latter, many fabrics of delicate and beautiful materials are prepared from the cultivated variety. The *Phormium tenax* is widely disseminated over New Zealand. Millions of acres, both in the north and south, are covered with it. It grows on any kind of soil, but it is most luxuriant in the vicinity of swamps and rivers upon moist alluvial land. Here it is not uncommon to see the leaves grow a length of ten to twelve feet, and the flower stalks to sixteen to twenty feet, with a thickness of two or three inches.

Experiments made to test the strength and tenacity of the New Zealand flax have shown that it is far superior in these respects to any other vegetable productions of the kind. Consequently when its great value became fully known, much anxiety was shown to obtain it in England.* According to a statistical statement, the export, as early as the year 1825, amounted to sixty tons, of a value of £2,600. In 1830, 841 tons, and in 1831, 1,063 tons, were exported. But this seems to have exhausted the efforts of the natives to produce the material in a state of sufficient purity with their

* The tenacity of several kinds of woody fibres, as compared with silk, is as follows:—Silk supports a weight of 34 lbs.; New Zealand flax, 23½ lbs.; common hemp, 16½ lbs.; common flax, 11¾ lbs.

primitive means of cleansing the fibre. Since that time the export grew less and less every year, until it had dwindled down to almost nothing, as in 1865 only 15 bales were exported. The turning-point, however, was now reached: the long-looked-for machinery was at last invented for preparing and obtaining the fibre in a state of purity. The Parliamentary returns inform us that in 1869 the number of bales exported was 12,162, and in 1870 no less than 32,820, the value of which was estimated at £132,578.*

New Zealand contains a variety of valuable timber trees. The Kauri Pine is justly styled the "queen" of her forests. Its dark green foliage towers far above all other forest trees; its growth is slow; but in the course of centuries it will reach the magnificent height of 150 to 160 feet. It furnishes the best ship's masts and spars. These have long been celebrated in the British Navy. Its timber is of excellent quality, adapted equally for furniture and cabinet-work as for house and shipbuilding. The Kauri Gum is a very important article of commerce. For many years it has been in great demand as a varnish: and it is esteemed almost equal to Copal, some of extremely fine quality, fetching as much as £120 to £150 per ton in the London market. An incredible quantity of this gum is taken out of the ground beneath the decayed trees by the Natives; and, large as the trade is at present, it seems likely to continue to remain of immense value, at all events for some time, for the future. In the ten years from 1856 to 1865, 16,290 tons, of the value of £259,175, of Kauri Gum was exported. In 1870 this export amounted to £175,074, and in 1872 to £99,405. It has been estimated that there are at least five million of Kauri trees growing in a healthy condition, and each tree will produce annually two pounds' weight of gum of an average value of £50 per ton. Here is, indeed, a boundless source of future wealth to the Colony from this article alone.

New Zealand is the only and exclusive home of this valuable and remarkable tree, and even here it is only found in the north-western peninsula between $34\frac{1}{2}^{\circ}$ and $37\frac{1}{2}^{\circ}$ south latitude, though in immense quantities within this boundary. European civilisation, however, with its illimitable demands, and too often destructive and improvident waste of materials of important consumption, threatens

* Mr. Cornelius Thorne, of 16, Mark Lane, has made a series of experiments in the treatment of the Phormium fibre. Through his exertions the manufacture of the New Zealand flax into cloths, packing, towelling, rope and yarn, appears likely to be established in this country. A complete and interesting collection of specimens of the raw and manufactured material presented by Mr. Thorne was exhibited at the *Conversazione*, which was held shortly after the reading of this paper, and it is now deposited at the rooms of the Institute.

the existence of the Kauri. With the last of the Maoris perhaps may disappear, too, the last of the Kauris from the earth !

In modern times no country can be considered to possess the certainty of permanent prosperity without coal. The demand for it for navigation, as well as for manufactures, is colossal, and constantly increasing. Among its other riches, New Zealand possesses this essentially valuable material. It has its coal-fields, which are already producing large quantities of coal. The quality varies, but much of it is of very superior character. In heat-generating properties it is reported to be equal to the coal raised at Newcastle, in New South Wales. Coal seams of considerable thickness are being worked at several places—in the North Island at Kawa-Kawa, Bay of Islands, and at Waikato ; in the Middle Island, at the Grey River ; at Mount Rochfort, in the province of Otago ; and also in Southland.*

Gold was first discovered in New Zealand in October, 1852, by Mr. Charles Ring, forty miles east of Auckland, in the vicinity of Coromandel Harbour. This field was worked for three years, but the result was not very remunerative. It was again worked in 1862. On the West Coast the precious metal was discovered about the same time in the neighbourhood of the Wakapoai (Heaphy), seven miles north of the river. In 1862 in the London Exhibition were to be seen Taraniki and Wairiki gold from the Province of Wellington. At Nelson, the Aorere (Massacre Bay) gold field was discovered in 1857. The gold field of Hokitiki (Westland), in the Province of Canterbury, began to be worked in 1865. In spite of its tempestuous climate, dangerous harbour, and rock-bound coast, such was "the thirst for gold," that the population which flocked there amounted to no less than 16,000 in the September of that year.

In the beginning of 1864 gold was found on the banks of the Wakamarina, in the Province of Marlborough, in the Middle Island. The usual rush took place here also, and 3,000 men were soon on the ground ; but although some of the claims proved rich, it does not appear that others yielded more than fair average wages.

But although the whole country was thus proved to abound in gold, all the first results were totally eclipsed by the surprising and dazzling discovery in the Province of Otago in the year 1861.

* "The Coal Fields seem to me to guarantee the future and not distant rise of the Colony beyond anything that we have seen ; and many of them may be worked with great facility." (Extract from a letter of Sir James Fergusson, Governor of New Zealand, to Col. George Palmer, dated Dunedin, Jan. 7th, 1874.)

Situated about eighty miles from Dunedin, on the Tuapeka River, this El Dorado established the fact that New Zealand is one of the richest gold countries in the world. It was discovered by Mr. Gabriel Reid, and Gabriel's Gully quickly became the centre of attraction from all the other provinces. The excitement was tremendous. Everybody yielded to the fascination of the delirious dream of grasping untold gold. Nurses sung their children's lullaby with the refrain—

“Gold, gold, gold—bright fine gold ;
Wangapeka, Tuapeka—gold, gold, gold.”

Gold was found everywhere, on the slopes of the mountains, and in the valleys. 51,000 acres, bordering the mountain ranges encircling the Tuapeka Basin, were declared by the Government to be a gold field on the 28th of June. By the middle of August the weekly produce was estimated at 10,000 ounces. In September the Victoria papers reported no less than twenty-three vessels bound for Otago, among them some of the best steamers and largest Liverpool liners. This fleet brought upwards of 12,000 people to the diggings. New Zealand still continues to produce great quantities of gold. The yield for 1872 was 445,370 ounces. The total quantity exported from April 1st, 1857, to December 31st, 1872, amounted in value to £26,084,260.

Copper exists in several places, among others, in the Dun Mountain, at Nelson, but at present it has not been found in sufficient quantities to pay for working.

The iron-sand, which abounds in large quantities on the coast, in the neighbourhood of Taranaki, is believed to be the purest iron ore known. It lies from two to five feet deep along the sea beach. It smelts into a metal equal to the best Staffordshire iron.

The chief article of production in New Zealand is wool. It was this to which the founders of the Colony always looked to become one of its most important exports, and the staple of its prosperity. To Sir Charles Clifford belongs the credit of introducing the Merino sheep into the country, as early as the year 1843. He was for many years the largest and most successful wool-grower in the Colony. The increase of sheep and growth of wool, everywhere, has been marvellous. The wool exported in 1860 amounted in weight to 6,665,880 lbs. This had increased in 1872 to 41,886,997 lbs., valued at £2,537,919.

The number of sheep at the present time in New Zealand is estimated to be upwards of 10,000,000, of cattle, 450,000, and of horses, 82,000.

STATISTICS.

The European population amounted, at the census of 1872, to 266,852* (156,431 males, and 110,421 females). The entire population, European and Native, is distributed as follows:—

Province.	European.	Native.	Total
Auckland	64,337	23,227	87,564
Taranaki	4,599	2,355	6,954
Wellington	25,015	5,322	30,337
Hawkes Bay	6,212	3,102	9,314
Total for North Island	100,163	34,006	134,169
Nelson	23,062	483	23,545
Marlborough	5,384	369	5,753
Canterbury	48,906	607	49,513
Otago	73,956	826	74,782
Westland County	15,381	68	15,449
Total for South Island	166,689	2,353	169,042
Total for the Colony	266,852	36,359	303,211

From the return of the imports and exports for each province, for 1870, it appears that the value of imports was £4,639,015, and of exports, £4,822,756; and for the last financial year, ending June, 1873, the total value of imports was £6,102,811, and of exports £5,435,080. The principal exports are:—

Gold.. .. .	£2,163,910	Barley	£21,525
Wool	1,703,944	Butter and Cheese	23,222
Kauri Gum	175,074	Sawn Timber, Logs, &c. .. .	18,323
Flax.. .. .	132,578	Sheep	16,459
Tallow	75,583	Preserved Meats	14,108
Wheat	71,851	Silver	11,380
Oats.. .. .	44,195	Oil	10,749

RETURN OF THE VALUE FOR EACH PROVINCE OF THE IMPORTS AND EXPORTS
FOR THE FINANCIAL YEAR ENDING 30TH JUNE, 1873.

Province.	Value of Imports.	Value of Exports.
Auckland	£1,453,522	£723,127
Taranaki	20,014	386
Wellington	683,807	495,571
Hawkes Bay	134,324	209,244
Marlborough	16,669	75,819
Nelson	476,497	351,292
Westland	230,158	410,092
Canterbury	916,880	1,004,882
Otago	2,170,940	2,164,667
Totals	6,102,811	5,435,080

In 1872, 775 vessels, of the aggregate tonnage of 300,302, were entered inwards, and 743 vessels, of 284,366 tons, cleared outwards. These were principally British. It is an interesting and

* It probably now exceeds 300,000 (June, 1874).

remarkable fact that at the present time, several of the finest vessels, of the largest tonnage and most splendid accommodation for passengers, sailing out of the Port of London to any part of the world, are engaged in the New Zealand trade.

It will readily be anticipated that, coeval with the rapid and marvellous development I have described, which is going on in this flourishing land, those twin sisters of all modern progress and civilisation, the electric telegraph and the railroad, would soon be established there. The entire Colony is now intersected with telegraph lines from one extremity to the other, and already 404 miles of railway, contracted for previously to the 1st of July, 1873, are either finished or in course of completion. Among others it is intended to construct a Main Trunk line from Auckland to Wellington, embracing the Waikato. Such a line it is believed would be an important safeguard against future native disturbances, as well as a most valuable boon to the country generally. As a proof of the vigour with which railways are at this moment being pushed forward, the following announcement appeared in the *Times* of the 25th of last month: "A contract has just been entered into by the Agent-General of New Zealand for the supply of 9,000 tons of rails for shipment during the present year."

The gross amount of the public debt in July, 1873, was stated to be £10,369,736.* A considerable portion of this was of course occasioned by, and arose out of, the costly wars with the natives.

The estimated revenue for 1873-4 is £1,180,500. Financially, as in all other respects, the condition of New Zealand is most flourishing, and it is especially satisfactory to all who have its welfare at heart, to notice the extremely favourable terms on which the recent loan, in February last, was taken in England. It shows high confidence, indeed, on the part of the British capitalist in the resources and future prosperity of a country, when a loan for £500,000, issued at 98 at 4½ per cent. is immediately taken up. This is still more noteworthy from the fact, that within the last ten years other loans for some millions sterling, at 5 per cent. have been issued, the price of the first of these, in August, 1864, being as low as 80; thus showing how much the public in this country now value New Zealand Govern-

* "The grand total of debt will be £13,860,000 when all the railways—namely 767 miles—are completed, which were authorised up to June, 1872; when £1,000,000 has been spent on immigration, £200,000 upon native lands, £400,000 upon roads in the North Island, and £300,000 upon the gold field works." (Extract from Mr. Vogel's speech at Dunedin, February, 1874.)

ment stock, which has risen between 1864 and 1874 more than 22 per cent. Another loan for £1,500,000 issued at the same price (viz. at 98, at $4\frac{1}{2}$ per cent.), on the 22nd of May, has also been entirely taken up within one week.

EMIGRATION.

I must not omit to say a word or two on the subject of emigration. Myself a thorough emigrationist, I am deeply impressed with the conviction that it is an inevitable decree of Providence that new swarms of surplus people must be periodically drafted away from the busy English hive. I care not where they go, as long as they settle in one or other of the magnificent Colonies of the mother-country. But I confess to a strong feeling that New Zealand is at least second to none of them, and that by going there multitudes of careworn and anxious toilers may exchange "hard times," and a life of misery and poverty in England, for one of ease and plenty, and a happy home in this beautiful island of the Pacific Ocean. For all these classes, both men and women, great inducements are held out, and facilities for emigrating are offered by the New Zealand Government, through their present able and energetic Agent-General, Dr. Featherston; and also by an association, in which our noble President occupies a prominent position, "The Emigrants' and Colonists' Aid Corporation." The latter appears to have recently secured the grant of a most valuable location for emigrants proceeding under its auspices to the Colony in the Wanganui district. Of the halcyon days in store for them a most roseate picture (one of the freshest and latest accounts we have received) is drawn by the *Times* correspondent describing the delights and charms of this "happy land." His letter, which is published in the *Times* of the 30th of March, is dated Wellington, the 10th of January last. In it he speaks of the enjoyments just going on in connection with the new year. (We must not forget that in New Zealand it is then the height of summer.) "Picnics, regattas, horse-races, cricket matches, and out-door sports of all kinds," he says, "have occupied every day for the last two weeks. At any of the holiday gatherings about the towns the men will be found to be well-dressed, and the women and children, too, in really good and tasteful costume, spending money freely, and evidently unused to small economies. The greatest charm of these evidences of prosperity is their universality. Poor people, in the ordinary acceptation of the term in England, do not exist; there is no struggle here for

daily bread and meat ; no struggle at all, in fact, in the sense of forcing someone else out of the way. The resources of the country are so rapidly developing that immigration has no depressing effect on the labour market, and the wages of the labourer and artisan are rising proportionately with the influx of population. Though labour is so dear, the employers of labour are nevertheless well off, being able to get a good price and a ready market for all their produce." And then he goes on to say : "The 7,000 emigrants introduced during the past year, instead of diminishing the price of labour, apparently, by their additional requirements, would seem to have assisted a general rise. The fact is, the demand for labour grows with the increase of the wealth of the Colony, and with the increase of capital, seeking investment." Such is the strain in which the letter from which I have quoted is written. It is replete with valuable and important information, and is as interesting a contribution to the press as was ever published for spreading a knowledge in this country of the growing success of one of the most prosperous and progressive of the British Colonies. And is it not a just cause for national pride to feel, that all this prosperous development of the young Colony has been the work of the British race ?

In tracing the actual instruments by which it has been accomplished, a crowd of names pass before the memory. The rôle of distinguished men who have stamped upon New Zealand the impress of their genius, their energy, and enterprise is large and long. In addition to those of whom I have already made a passing mention, the gallant brothers of the great founder of the Colony, Colonel William and Captain Arthur Wakefield cannot be forgotten, nor yet Messrs. Stafford, Fitzherbert, Weld, and Fox, and Spain. A host of others, too, press on us in the recollection of the past, among whom one, especially, is conspicuous, that prince of missionary bishops, the gifted and accomplished Selwyn, loved by the Maoris, as he himself loved them, who, during his long sojourn in New Zealand, spread the benign influence of his great and noble character in many a savage spot and benighted region of the wilderness.

CONCLUSION.

Here I must pause. My task is almost done. I tear myself from it most reluctantly. It is a labour of love to relate the rise and giant progress of a land so interesting and so attractive, and, to me, replete with pleasant, as well as mournful, memories of days gone by.

I have endeavoured to draw such a picture of New Zealand's past and present story as could be compressed into the brief compass of an hour. A very few words will suffice to shadow forth some vision of its future. I do not affect the part of a seer, nor do I care to indulge much in the spirit of prophecy. From what it has been and is, I would think what it will be. If the wonderful progress I have described has been made—if all this surprising development has taken place in the course of only a single generation under British rule, and by scarcely more than one quarter of a million of the Anglo-Saxon race—what may be expected when the day arrives for its being peopled, like the mother-country, by upwards of 20,000,000 of her dauntless, energetic, and indefatigable offspring?

Whether the time will ever come when the typical New Zealander of Lord Macaulay (be he, I wonder, of Maori blue blood, or Anglo-Saxon bred) will find himself "sitting on a broken arch of London Bridge, contemplating the ruins of St. Paul's," I know not; but if, by the providence of God, in the dim and distant future, England, like the empires of old, its glory departed and its greatness gone, should receive such a visitor on its shores—though then the "Great Britain of the North" will have shared the inevitable fate of nations, and passed into a state of decadence and of ruin—in the midst of those glorious mountains of eternal snow—those flowering valleys and fertile plains of yonder "golden" land, she will have risen, like the Phoenix from her ashes, and renewed all her greatness and all her glory *there*! Then will the prediction of our own day be perfectly fulfilled, and New Zealand—the bright and beautiful—in truth be called "GREAT BRITAIN OF THE SOUTH."

DISCUSSION.

Sir CHARLES CLIFFORD said it appeared to him in the fitness of things that he who had been so honourably mentioned in the very excellent Paper they had just heard, should propose a vote of thanks to the gentleman who had thus enlightened them so well upon the beauties of New Zealand. It was stated that he (Sir Charles) was one of the earliest settlers, though Mr. Young had rather put on the date, for he was induced to emigrate to Wellington in 1842. He well remembered that almost the first thing he got hold of on arriving there was a pamphlet published in Auckland, giving the reasons, and proving to the satisfaction of the writer, why there existed no natural grass in New Zealand. He supposed the writer had seen nothing but the Kauri timber and

the fern lands of the North. He called to mind the many pleasant pipes it took himself and his friend, the late Francis Molesworth, to smoke before they came to the conclusion that it was advisable to examine the interior, and see if something better could not be done than hacking at the timber round Port Nicholson. They organised an exploring party, and examined the magnificently-watered grassy plains of the Wairarapa. There they met a tribe of natives, who were most anxious to participate in what they considered the good fortune of the Maories round Port Nicholson. With them an arrangement was easily made, which enabled him at once to sail for Sydney to import those sheep which formed the first station ever established in New Zealand. At the end of 1843, or beginning of 1844, the first clip of wool was sent to London, and realised the sum of about £250. In 1874 the value of the clip of wool sent home from the Colony is upwards of three millions sterling. That alone showed the splendid progress New Zealand had made in thirty years, and almost every interest had extended in a similar manner. There was one thing in New Zealand they all might be proud of, and that was it had proved the energy and determination of the English race, and of their capacity for self-government. It was the first Colony that had the honour of receiving a Constitution from the Parliament of England. For ten years it had laboured under the advantage, or disadvantage, of being under the government of the Colonial Office. During those ten years, from the difficulty of communication, nothing was done, and but little progress was made. He remembered attending meetings where it was calmly discussed as to whether they had not better all re-emigrate to some happier clime. Nothing seemed capable of progress. In 1853 they commenced their legislative duties. A Constitution was given to New Zealand. The Colonists of New Zealand took the whole business of the country into their own hands, and from that day forth everything sprung up in a way that was most remarkable and curious to witness, and had never ceased progress since. But one great reason that had induced him to speak was to notice a fallacy in the first part of the address—a fallacy which had pervaded the minds of the English people ever since New Zealand was first colonised; and for the honour and credit of the first colonists he was glad now to take the opportunity of drawing attention to it; and that was that the natives of New Zealand had (to use a word) been “chiselled” out of their land; that it was got from them by the gift of a keg of powder or a blanket, and that they had no other recompense, and that the natives were obliged to give their land up. He defied contradiction when he said that there was not a

single inch of land throughout the whole of New Zealand owned by a British subject that had not been as correctly bought, and with as much ceremony, and for comparatively as much value, as any inch of land through the length and breath of Great Britain. It had been stated that there were 70,000,000 acres in New Zealand. Since the first settlers went there there had never been more than 50,000 natives. The natives were not nomadic. The native tribes existed in specified localities, and they existed by the cultivation of their land. Now it was a mere sum of arithmetic for anyone to make out how much of that 70,000,000 of acres of land could possibly be cultivated, and thus used profitably by them, they not being a hunting tribe—that is, how much could be used profitably by 50,000 natives, the proportion out of these being taken as women and children. It would be seen that it was very small. Then, what was the value of the rest of the land to the native population? It was of no possible value. He believed that the whole of New Zealand was divided so carefully and owned by the tribes, that they themselves knew the particular boundaries. Nine-tenths of the land within those boundaries not only was of no use to them, but by no possibility or concatenation of circumstances could it become of use to them. The English landed there. They came to the tribes. They said, “We will occupy this land, and we will give you what you consider its value.” At that time a blanket, a hatchet, a keg of powder was absolutely of a great deal more value to the natives than a hundred of his acres, which neither he nor his successors could ever use. But the value to them, the great benefit to them, of the English occupying the land was, that whenever a settler settled upon land, and occupied a hundred acres of native land, it gave a specific value to the land adjoining which it had never had before. The reason of the war was not an insufficient value having been given them for the land, but that that value was given to the wrong people. From Colonel Wakefield upwards those who trafficked with the natives got the best possible evidence within their scope. They found out, as they supposed, who the owners were. They dealt with supposed owners. They paid a proper price for the land, and for the time being they occupied it. But a short time afterwards came another tribe that said, “Oh, this land belonged to us; you must pay us for it.” It was impossible to pay every claimant. Hence the disputes in lands; hence the wars; and hence the great difficulties that continually arose. But there was another thing stated by Mr. Young that he did not quite agree with, and that was when he had said the natives might be considered a conquered people. They are not a conquered people.

We had fought with them, and they had fought with us, and nobly they had done it. They had found by degrees that it is better to be at peace than war. They had not left off fighting because we had beaten them, for he must confess that they had beaten us as often as we had beaten them; but they found that it was to their material interest to be friends with us. So far from being anxious to drive us out of the country, they were very anxious to be employed in making roads through the Colony, and seeking Europeans to colonise their lands, and some of them are becoming rich men. They are getting good rents for their lands, letting land to sheep-owners, and selling land to agriculturists, and in a very few years, with the education which is spreading amongst them, they will become some of the richest proprietors in the country. He was in hopes that a certain remnant of the tribes would amalgamate with Europeans, and that they would begin to increase, and that the end would be that they would not be an exterminated race, and that in New Zealand there would be the sole instance of an aboriginal race being absolutely commingled with the European race. He would not detain them longer, but he was quite sure that there was no one present who had been engaged in the task of colonising a British Colony who would not feel a pride in considering that he had conduced to the extension of the great Empire of Great Britain, and that so long as the Colonies and Great Britain were united in feeling, so long would the empire continue, and so long would it year by year become more consolidated; and the only thing that could cause a disruption would be when a policy of disintegration took place, when a feeling of dissatisfaction arose, and a wish for separation occurred between the mother-country and the Colonies. He believed then the destruction of the Empire would be commenced. He was glad to propose a vote of thanks to Mr. Young for the very able sketch he had given of the history of New Zealand.

The PRESIDENT expressed regret that he was unable to stay and hear the whole debate which he was sure would follow, and which Mr. Young's most interesting Paper was certain to call forth. He must, therefore, say now what he would desire to have said after collecting the suffrages of the whole meeting, or at least of all who intended to speak. But he thought he might conclude that they already thanked Mr. Young for his able and interesting Paper, and that he might pronounce their opinion, and convey their thanks to him. Mr. Young's very able Paper had impressed upon him more strongly than he had felt before, from what he had heard and the knowledge he had acquired in England, of that splendid country of

New Zealand, of their good fortune in forestalling the French in the occupation of it, and of the benefit to the world at large which had accrued thereby. He did not think we flattered ourselves too much when we consider what the French have done in other Colonies they possessed. They had never brought a country to such a state of wealth, progress, and happiness as New Zealand had attained in these few years. They would remember the dates Mr. Young gave them. New Zealand was first heard of in the same year when Charles began his quarrel with the Parliament. It was already occupied by a few Englishmen perhaps some forty or fifty years ago; but it was only within the last thirty years that there was any systematic colonisation in the country, and yet they had heard from Mr. Young and Sir Charles Clifford the great progress it had made in less than a generation, and the position it occupied now as one of the great producing countries of the world. He was happy Mr. Young had alluded to his (the President's) name in connection with it. He had never seen it—he wished he had—but his connection with it had been fortunate. When he left the army, the Canterbury Settlement was just being established, and he put a small sum into it at that time, and he was told his property there was worth from £30,000 to £40,000. It was a country making immense progress, and deserved the attention of any individual who wished to better himself, and it deserved all the assistance and encouragement that this country could give it. With regard to the Maories, he hoped that the fate of extinction was not in store for them. We know, as Sir Charles Clifford had said, how bravely they had fought, and they were a noble race of savages. He had heard that when we had 15,000 British troops in New Zealand at war with them, that it was believed they were never opposed by more than 700 armed Maories. If that were so they must have fought well. Of course the difficulties our troops had to contend with were great. They were hampered by communications and the necessity for supplies, and by the baggage which it was necessary for them to carry, while the Maories did not have to encumber themselves with any of these things, which made it so difficult for our troops to make progress in the bush of the country. Sir John Glover had reminded him that two of his brothers fell in the war. The Maori was a brave race, and they had every reason to respect them; and he hoped that they would, as Sir Charles Clifford had said, live with us in community in that country, and become one of the civilised races of the world, and share in the prosperity of the land. There was one other point on which they might well congratulate themselves. They never had sought to

destroy the Maories. He believed that ever since they had occupied the country the local authorities had in every way endeavoured to protect the natives, and even if the race became extinct, he did not think the English, either as a nation or as individuals, would have to reproach themselves for their extermination. He believed that they always endeavoured—and he thought they had succeeded in their attempt—to do their duty to them, to civilise them, and to benefit them while we benefited ourselves, and improved the land. Those were all the remarks he desired to make; and on his own behalf, and on the behalf of the meeting, he would convey the thanks of the meeting to Mr. Young for his able and interesting Paper.

His Grace then left the meeting, and the chair was taken by Mr. James Youl, C.M.G.

Mr. Eddy corroborated the observations which had been made as to the regard the Maories had for the law. Two cousins of his who were settled in Hawke's Bay moved up the country, taking possession of a fine tract of land, which they occupied, as there appeared to be no owners, and which they in their simplicity thought they might have without paying rent for it. Very soon, however, the natives appeared and demanded rent for it. They paid it, and remained on the land, finding it a good sheep-farm. But they told him the Maories were very wide-awake, and the worst lawyers they had ever met with. He could not believe that such wide-awake gentlemen were in much danger of extermination.

Mr. J. B. MONTEFIORE agreed with the glowing terms in which the Colony had been described by Mr. Young. He could go back to the year 1834, when he first visited the island. When he gave evidence before a Select Committee of the House of Lords, he compared the climate, in soil and productiveness, to a perfect paradise. That language might have been exaggerated; but he confessed, after leaving New South Wales, it gave him that impression. It was at Edward Gibson Wakefield's instance he had given evidence before the Select Committee, and then he was fully examined upon many points which it was not necessary for him now to dilate on. He did not exactly agree with what was then said as to the cause of the wars with the Maories. But he would pass that over. He disagreed with what Mr. Young had said, and fully agreed with Sir Charles Clifford, that the Maori was not to be an extinct race. They were a fine race of people, indeed the finest race of savages he had ever seen in his life, and he had travelled a great deal. They were not destined to extinction at present, and he hoped they never would be. What he wished to impress upon the people of this

country was, the very wise course taken by the New Zealand Government in sending out emigrants free of expense. To talk of a population of only two or three hundred thousand in such a magnificent country as that was seemed a perfect farce, as it was capable of supporting a population as large as our own. There was the land, there was the soil, and everything was prosperous. It appeared to him an extraordinary thing why the emigrants in this country should halt about the matter as to their going to the United States or the Australian Colonies and New Zealand; and he hoped the example of New Zealand, of granting a free passage to intending emigrants, would be widely followed, and put an end to all halting on the part of emigrants as to where they should go; for, by temperance and industry, a man could very soon make his fortune, and enjoy a splendid position. There was no money on the brain there, and a man was esteemed and respected for what he was, and according to his ability. It was not necessary for him to become naturalised there. It was not necessary for him to be educated in American notions there, or governed by American laws. There was room for any number of people, if they could only go out, and reap the advantages which there presented themselves. He was sorry to have trespassed on their time, but he did wish to say to emigrants who were going to New Zealand that he congratulated them on doing so, as he considered they were going to a land, to use the language of the Old Testament, flowing with milk and honey.

Mr. LLOYD could fully corroborate all that Mr. Young had said. He had been for more than twenty years travelling in various parts of the world—in the United States and Canada, Tasmania, Australia, and New Zealand, and he would give the preference to New Zealand over all the countries he had lived in. He had written a little paper himself on the Land question, and Dr. Featherstone had sent him a letter of thanks for it. He could most decidedly bear out all that Mr. Young had said. Its resources were magnificent, and it possessed the finest climate under the sun.

Mr. WILSON said he was in hopes that in the course of the discussion they would have heard gentlemen who were well informed upon matters connected with the New Zealand settlement, and in such a case he should not have troubled the meeting. But there was one passage in Mr. Young's very admirable Paper which he must say no one more heartily agreed with than he did. He had himself travelled in New Zealand, and had studied the Maori, as he had tried to study the representatives of other countries, and

he found him a very interesting study indeed. Mr. Young had favoured them with the statistical returns, so far as they were available, of the native population of the country, and he had traced them to periods in their history till he lost himself in that period when nothing like a careful statistical return was possible; and although the original return upon which he based his Paper might not have been very authentic, still they saw enough to lead them to fear—what they must regret, and he was sure the well-meaning Colonist would still more than they did—that this fine race of men were fast progressing towards annihilation. He had some taste for the details of anthropological inquiry, and some interest in the various processes of the colonising experiments of Great Britain and such other countries as had turned their attention to colonising, and he must say he thought it would be a shocking thing if so fine a race should become extinct. They had heard something of their warlike powers. They had seen illustrations of the excellencies of their character in other respects than those of soldiering. He heard everywhere of the original character of the race, that they had the elements of a very fine people indeed. He heard that till we came among them they were a truthful people, a kind-hearted people, till their passions were roused by war and animosity, and, further, that they were a sober people. We have modified their character very greatly, and in that process we seem, somehow or another, to have afflicted them with what we seem likely to afflict all races (with one exception, to which he would allude), with those elements of deterioration of character which end in annihilation. He must say that as a Christian and member of a Christian country, it was a most shocking thing to him to think that we could not carry on our process of colonisation without dooming the race we “civilised” to annihilation. We take the lands from various aboriginal races, sometimes paying for them: sometimes we steal them, if the unfortunate creatures are too powerless or too child-like to resist us. But when we find them a warlike race, we condescend to pay for them; and then here comes an old settler, who says he gives a fair price for the land in a keg of powder or a blanket! He was surprised to hear Sir Charles Clifford condescend to such sophistical detail as that, and that we fairly paid for any tract of land by a keg of powder. He told us that the New Zealander was not a hunter. The only indigenous quadruped in the Colony was a rat. Well, rat-hunting might be amusing, but it did not lead to much. If he was not a hunter, it did not follow that he might not have been made one; and when Sir Charles Clifford introduced his sheep,

why did he not introduce something for the benefit of the Maori ? Upon this depended a very important problem in the process of colonisation. Having taken an active part in colonisation himself, it was a point which had pressed upon his conscience. What right had we, because we were white men, to say to the black man, " We think we can apply this land to better purposes than you " ? We had no right, unless we arranged to the utmost of our capabilities that the man should be put in no worse—if not in a better—condition than we found him, but we too often put him in communication with those who demoralised him. We induced him for a keg of gunpowder, or brandy, or a blanket, to part with his land, and allowed him to go to certain ruin ; and then we shrugged our shoulders, as Christian men, and said, " Poor devils ! they are becoming annihilated ! " Is this what we ought to do ? There was one point at which the annihilation of a race did not take place, and that was the line drawn by the kind of climate which was unsuited to the English constitution. The tropical races held their own, but he thought it was a most shocking thing that because the country was adapted to our race, so little had been done successfully to continue the Maori race we found there, and which we professed to wish to assimilate with our own, but which in the actual process of colonisation we were rather too apt to underrate, and to treat annihilation as if it were a special provision of Providence, with which we had nothing to do. He did not believe it. He pleaded the cause of the coloured man. The tale of the coloured man was never told honestly and fairly. He had his friends here and there, but practically he was unheard in the councils of the world ; and he again said that it was a shocking thing that the English people as yet had elaborated no process for doing something successfully and practically for the continuation of a race which we had no right to supersede, and which we were bound to secure, having taken away their land, in no worse position, if no better, than their former one. Was this the case ? Mr. Young had favoured them with statistics. The process of annihilation did not seem to be rapid, but it would go on. The signs of settlement conveyed the impression that very much larger numbers of people had been upon the land than there were now. Pahs, which now were occupied by 300 men, would seem to have been occupied by 3,000 in times past. Could not these men be saved ? He came home on the last occasion with a gentleman who was a great and a sincere friend of the Maories, and had been employed by the Government amongst them. He (Mr. Wilson) adopted the tone that he thought they were doomed to extinction. The

gentleman said, why? He replied, he had seen signs which made him think so. The reply was, that they had diminished very much during the last wars. A good many of them were killed and subjected to starvation, but they were not seriously diminished. "Why should they?" he asked. I again told him why, giving the reasons that appeared to lead to such a conclusion. He said, "No; a race diminishes if it will not assimilate itself with the habits of the conqueror. But what does the Maori do? He puts on European clothing; he comes into our towns, and opens a store; he buys a ship; he commands a ship; he opens a banking account; he farms. Look at that. Why should he become extinct?" His only object was to show that even, although he believed the New Zealand colonists had met the Maori in a friendly and thoughtful spirit, and although he believed that they had done a great deal, under the guidance of the good Bishop Selwyn and others, still he did not believe that there nor anywhere had justice been done to the native race; and he said it emphatically that it was a scandal that that portion of the problem of colonisation had not been better worked out here and elsewhere.

Mr. BRODRIBB had listened with a great deal of attention to Mr. Young, and he endorsed all that had been said about New Zealand. It was, without exception, one of the most prosperous Colonies. It was called in Australia "the England of the Southern Hemisphere." It was said in that Paper that in the course of time the Maori must be annihilated, and he was sorry to hear it. He thought they had made a very great mistake in not recognising tribal rights. The natives say we took their land from them, and when they began to find out by experience that they had been tricked, then they resisted, and then came the war between the British Government and the Maori. He hoped the lessons taught them there would be a warning with regard to their dealings with Fiji. With regard to the American Colonies, the British Government saw the rock on which they had struck, and so they treated the Australian Colonies wisely; and he hoped, if they did take over the Fijians, they would avoid the errors they had fallen into in New Zealand, and if they recognised the native rights he was confident that there would be no dissatisfaction.

Sir CHARLES CLIFFORD, in replying to the observations of Mr. Wilson, said he was sorry to find him indulging in such fallacies. Besides the celebrated keg of powder, he thought he said a blanket, which was a more comforting thing to the Maori, and much better than the mat he had. But he thought he said the real price paid for the land was not simply the blanket or the keg

of powder, but was the value attaching to the adjoining land, and the market open to the native for his labour and his surplus produce. But if Mr. Wilson would kindly go through all the Blue-books from 1853 to the present time, and collect the amount of money that had been spent by the Government in providing education for the natives, in providing them farming materials, in setting them up, and trying to civilise them in every possible way, he would find that everything had been done that could to benefit the Maori, and he would find that the price given for the waste lands—which up to that time were not of the slightest possible value to them, and never could have been—was fair, for they now caused those who were still living in New Zealand to be rich men. The Government had taken very great pains with them in every possible way, and many of them were now, comparatively, in very good circumstances, and were being civilised. But he would come to another point which had been referred to, and that was the destruction of the natives. He maintained that the advent of the European into New Zealand was the salvation of the remnant of the race. When Mr. Wilson said that there were the appearances of a large population of natives through the whole of New Zealand, it was quite certain from appearances that the South Island was at one time as thickly populated as the North Island. When the settlers first went to New Zealand, the natives in the South Island were just completing the work of extermination by themselves. As he told you, they had nothing to hunt but a rat, so they took to hunting themselves, and, like the old Scottish clans, they all had blood feuds one with the other, and they never rested till they had them out. One great cause of the depopulation was female infanticide, because female infants were impedimenta of war. They killed the females, but brought up the males for war, and these lived by despatching each other, and they had almost exterminated each other in one island, and were fast doing it in the other; but the advent of the European has saved the remnant, and for that reason he believed he would still exist, and was not doomed to extinction. He could go much deeper into these questions, and prove his case more thoroughly, had time allowed.

Mr. J. DENNISTOUN WOOD was very far from denying that the Maories were a noble race, and he would be the last to wish that justice should not be done them; but the English were just as noble a race, and while it was very important that they should do justice to the Maori, there was no reason why they should do injustice to the English. Mr. Wilson had asked, why when civilised races go amongst uncivilised, if they were weak they steal their lands, but if

they were strong they buy them. Well, it was admitted that in New Zealand the land was bought from the natives. What injustice was done them by that? One would suppose that the natives were deprived of land which they cultivated, but not a single acre of land which the Maori was cultivating was taken from them until they rose in rebellion. The whole face of the country, with very few exceptions, was covered with ferns. In the South Island the number of natives was very small indeed, somewhere about two or three thousand, while the European population must be much over 100,000. In the name of common sense, was the colonisation of an island like the South Island to be prevented out of consideration for 2,000 savages? One would imagine from what had been said, that, before the advent of the European, New Zealand was a kind of paradise. But what was their state? Every man's hand was against every man. It was a state similar to that which prevailed in Scotland in olden times: when one clan in Scotland had carried away the cattle of another it ate them; but in New Zealand it took away the men and ate them instead. Surely to put an end to cannibalism was in itself a great benefit. We had not taken a single acre of land from the Maori except in case of rebellion. Mr. Wilson had said, when Sir Charles Clifford was introducing his sheep, why did not he introduce something for the natives, though the Maori did not object to mutton. Did not Captain Cook introduce the pig, and has not that greatly benefited the natives? What had they to live on in the shape of cultivated crops? Nothing but a few poor roots. Europeans had introduced the potato and other useful plants, and he thought all these things showed that the advent of the European had been of very great benefit to the native. But then they were told that they were being exterminated. Well, that was rather an ugly word, but what did it really mean? If we were carrying on a war in which we were exterminating the natives, he could understand what a cruelty and what a shame it was; but in what way the Europeans exterminate the natives he was at a loss to see. If there was any extermination, it was not the Europeans—it was the natives who were exterminating themselves. If they chose to give way to habits of intoxication, how were we to prevent them? Were Europeans to have a Permissive Bill all over New Zealand? Mr. Wilson had said that the natives were perfectly sober when we went there. No doubt, but that was no great praise to them, because they had nothing to get drunk upon. We had heard a great deal about confiscation. When one heard of confiscating land, one had the idea of fertile fields, and was carried back to the time of the

Norman Conquest, when the fertile fields were confiscated by the Conqueror. He had ridden over the confiscated district, which was covered with millions of ferns, with here and there a patch of cultivated land, and he did not suppose that if the natives had chosen to have remained anyone would have interfered with them. But what hardship was it for them to clear a piece of fern land somewhere else? Of course if it were land like an English farm it would be very different. What does a New Zealander do? He simply crops up some ferns and puts in potatoes, and he may renew that process anywhere else. But even if there was any hardship, this land was not confiscated until the Maories had engaged in a most unprovoked war upon the British settlers. It was said that there must be something wrong when wars take place between the Maories and English settlers; but it must be remembered that they were always fighting amongst themselves. They simply fought with us because they must fight with somebody, and we were nearest at hand. But now they are coming over, and, in point of fact, will soon turn Quakers. But their gradual decrease was not to be attributed to any fault or injustice on the part of Europeans. It was rather owing to some subtle influence which we cannot well account for. Look at the native plants. If you go into an unsettled district you see tall ferns, perhaps five or six feet high. Some European settler goes there and sows a little grass, and in a few years you find that the English grass has choked out these tall ferns. So with regard to the native timber; you cut down the tree, and the underwood goes; or you cut down the underwood, and the tree goes. There seems some incompatibility between European things, whether animals or plants, and the Maories, whether men or vegetation. It was no idea of his. If it had been he should have hesitated to broach it; but those interested in the subject might find the same idea brought forward in a most convincing manner in a book by Greig, entitled, "The Enigmas of Life." But before he sat down he would like to say a word on another subject. Mr. Young had described the advantages of New Zealand as a field for emigrants: he would wish to call the attention of persons who might be tourists and travellers to the advantages which New Zealand offers them. There was perhaps no more beautiful country in the world, and there were beauties in New Zealand peculiar to itself. There were scenes which were not to be found in any other country in the world, with the exception of the marvellous district of the Yellow Stone district, in America. He had bathed in hot-water springs in New Zealand which were below high-water mark. There were boiling geysers, and rivers and

lakes of hot water. There was very grand mountain and lake scenery, which would favourably compare with parts of Switzerland. The Wakatepu lake was skirted by mountains 7,000 feet high, and on the West Coast of New Zealand there was one of the grandest panoramas in the world. Mount Cook, which was 13,200 feet high, was, for all picturesque purposes, as high as Mount Blanc, for you could not see Mount Blanc except you stand on a platform 4,000 feet high. But Mount Cook rises at a distance of twenty-five miles from the sea, and was fully visible from the coast; and there was an extent of 250 miles of country abounding in mountain scenery, none less than 4,000 feet high, until they culminated in the glorious summit of Mount Cook. When people were searching all over the world for something beautiful and grand, he would advise them to visit the splendid scenery of New Zealand.

The Hon. JOHN HALL, of New Zealand, said Mr. Wilson had spoken very strongly on the conduct of New Zealand to the Maori race, but the difficulty he (Mr. Hall) found in meeting his assertions were that they were entirely general, and not specific. Facts might be shown to be true or untrue. He could therefore only meet them by a general denial. He would safely make this general assertion, that Mr. Wilson could not be a warmer friend to the Maori race than were to be found in the Government and Legislature of New Zealand, and throughout the length and breadth of the Colony. He felt quite sure Mr. Wilson would not have said what he had if he had lived there and witnessed the efforts and exertions which were made by Government and Legislature to save the Maories from extinction. He would mention one or two facts, showing the disposition on the part of the Colony to do all that was possible to benefit the natives. They had spent in education, for the special benefit of the natives, a larger sum of money, in proportion to the population, than was spent by Great Britain in educating its population. Was not that doing something for the natives? Without reference to the general expenditure of the country, in the benefit of which the Maories had their share, but outside of it, the natives were provided with hospitals, with medical attention out of hospital, and with loans for the purchase of agricultural implements. They were also sometimes given prizes for ploughing, which Europeans might in vain apply for. The Government advanced them loans for the erection of mills and for building ships. They provided them with special magistrates, acquainted with their language and customs, and with native commissioners, able to assist them with advice on many important subjects. There was nothing which a prodigal expenditure of time,

labour, and money could do, which had not been done by the Government of New Zealand. He felt quite sure if Mr. Wilson had lived there and seen the earnest efforts of the leading men on their behalf, he would have spoken in a different spirit from that which he had. He was reminded of one very great advantage that had accrued to the natives in the settlement of New Zealand, and which had not yet been alluded to, the great value that had been given to those lands which were reserved for them out of the Government land sales. He knew of one district on the West Coast of the middle island, in which the whole township was the property of the natives, and every penny of the rents of the township, amounting to several thousands of pounds, was divided amongst, or spent for, the benefit of the native owners. One-tenth part of the sales in the New Zealand Company's settlements were reserved for the benefit of the natives, and managed for their interest. They derived many real advantages from our advent to the country, one of which was that they were not able to proceed in the process of exterminating each other, which had previously been going on, and which was one cause of the great diminution of their number. Mr. Wilson had asked what right had we to go there? We have admitted from the very beginning the full and perfect right and title of the New Zealander to the ownership of his land, and not one acre had been taken from them, except as a punishment for rebellion—a punishment inflicted on Englishmen under similar circumstances—without their free and full consent, and without being properly paid for. On the other hand, he might ask what right had a small knot of men to shut up from occupation one of the most beautiful portions of God's earth, when they themselves were quite unable to use it? He thanked Mr. Young for his able address, and if he took exception to one or two points he was sure Mr. Young would understand that they did not under-estimate the value of his interesting Paper. He did not agree with Mr. Young in condemning the withdrawal of the British troops. Upon that subject of course he was aware there had been different opinions. He would say emphatically that the withdrawal of the troops was one of the most wise and beneficial acts which the Imperial Government could have adopted. It had led to a solution of the native difficulty, which probably would not otherwise have taken place, and later troubles with the natives were dealt with more promptly, more effectually, and more mercifully than had been the case before. He earnestly hoped that if troubles should arise again it would not be supposed that the colonists of New Zealand could not rely upon their own courage exertions, and resources, to deal with them, and give them a satis-

factory solution. Of course he was not speaking of any assistance which the Colony fairly might expect from the mother-country in case of need to repel foreign aggression. He merely said they ought to, and could, settle their own internal troubles.

Mr. WILSON, in justice to himself, wished to guard himself from being misunderstood. He had not brought the charge against the New Zealand Colonies of having ill-treated the Maories : far from it. He had travelled sufficiently, and met sufficiently with men in the Colony, to appreciate the exertions they were making in their behalf ; but what he pointed to was, that the Maori, according to Mr. Young, was doomed to extermination, and, as a colonist, he said that was a great pity, and that they were a race which should be preserved, if possible, and that no single stone should be left unturned to accomplish that end. He would be the very last man in the world to turn round upon Sir Charles Clifford, and men like him, and say that they ought not to have done what they did. On the contrary, he recognised the great benefits they had conferred—the greater benefits they had attempted. But they were dealing with results, and not simply with efforts or intentions.

Mr. LABILLIÈRE thought however much we might regret our rule in New Zealand had not civilised the natives up to a higher point, we might perfectly quiet our conscience by the conviction that nothing could have been more happy or more fortunate for the Maori race than the occupation of New Zealand by the British people. Suppose we had left them alone, and no foreign power had gone there, the country would have been left open to adventurers such as those we find in Fiji. Suppose, on the other hand, that the French had forestalled us in its possession, as they were so near doing, was it to be supposed that they would have dealt better with the Maories than we had ? Was it to be supposed that there would have been less extermination, that there would have been a higher civilisation introduced into the island ? He did not think anyone would venture to say that. On the contrary, he thought they would say that the very best thing had happened for the Maories in our occupation, and the very best thing had happened for ourselves. Apart from the other points of great interest which had been brought out in Mr. Young's Paper, he thought the Paper was peculiarly appropriate at the present time, when we were just about to take in hand another possession in that quarter, as we took New Zealand in hand a few years ago. And he believed, from the success of our colonisation in New Zealand, we had everything to hope for from our occupation and colonisation of Fiji. But that

brought him to another point in Mr. Young's Paper. He showed them how the vigilance and activity of the Government watching the movements of the French in that quarter had secured us New Zealand. The Imperial Government occupied the island not so much in order to protect the Maories as to keep the French or any other power from the neighbourhood. Now a totally different policy had been pursued with regard to Fiji. He believed that for a long time the Government temporised with the Fijian question, in the hope that some other Power would settle the difficulty and take it off our hands by occupying the island. He thought that the policy which led our Government in times past to try and keep other powers out of that quarter was a very wise one. If we were to trace the history of Australian colonisation we should find that almost every step taken was for the purpose of keeping a foreign power out. Tasmania was colonised originally with the view of keeping the French out. The attempt to make a settlement at Port Philip in 1803-4 was undertaken for the same purpose, and so was that at Western Port in 1827. Western Australia was colonised for the same purpose, and the settlements at Melville Island and Raffles Bay—which existed for some time about the year 1824, close to where the South Australian settlement of Port Darwin has been formed—were also founded for the purpose of keeping foreign power out of those parts; and he believed that policy was a perfectly sound one, because it was a source of great power and security to us to have no troublesome neighbours near the Australian section of the Empire. He thought it was a pity that we had not acquired New Caledonia. When the French went there it was with the view of getting a footing in that quarter, and of menacing us in the event of war. By the last mail we learned that some uneasiness in Australia was being caused by the announcement that the French Government were using that island as a penal colony. We still left other positions, more especially New Guinea, open for any power to come and seriously interfere with us in that quarter. He felt that Mr. Young's eloquent and able Paper must at any time have been deeply interesting, but additional interest was given to it by the circumstances of the present time.

Mr. YouL said he thought the discussion might now [quarter to eleven] very well be closed, and he could only express his gratitude that it had taken place. If it had any effect at all he felt it would have the effect of saving those interesting Maories from extermination and extinction, and if that alone should be brought about as the result of the evening's proceedings, it would, he was sure, be an agreeable recompense, not only to Mr. Young for the

trouble he had taken, but to all who had taken part in the discussion.

The thanks of the meeting were given by acclamation.

Mr. YOUNG, in replying, said it would ill become him at that late hour to detain them in returning them his warm thanks for the compliment they had paid him. He had been amply recompensed for any trouble he had taken by the very earnest, lively, and interesting discussion which his Paper had called forth. He would, however, notice for one moment the point which Sir Charles Clifford referred to with reference to his observation about the Maories parting with their land. He thought that if anyone was good enough to look at his Paper again and read it, they would see that he rather suggested sympathy for the Maories, because, having had undisputed sway over their land (whatever it was worth) for so many centuries, another race had suddenly burst in upon their country, and for certain trifles, which he had mentioned, had induced them to part with it in a wholesale way. He had omitted to mention that one of the leading principles of the New Zealand Company in founding the Colony was to have in all their Settlements "native reserves;" and there was no doubt that what was called the "native reserve," in consequence of the colonisation by Europeans of the particular block, section, or settlement, would become infinitely more valuable to the natives than it would otherwise have been. But, unfortunately, difficulties arose from the disputes which soon took place from various causes; and although the theory was very good, it was not able to be worked out satisfactorily in practice, and this led to the disastrous wars we have been involved in with them. He thought, also, it would be seen (whatever opinion he himself held on the subject) from the statistical returns which he had put forward, that the Maori was slowly, but surely, passing away. He was not one of those who thought this was brought about by any cruelty or neglect on the part of the colonists; but it was the inevitable decree of Providence that the aboriginal races should always perish on the advent of the white man. History pointed out that this has always been the case all over the world; and he thought the Maori would follow in the same track of ultimate extinction. He was delighted to see the great efforts that were being made on the part of the colonists themselves to do all they could to preserve and perpetuate the native race, if possible. He quite understood the motives on their part for doing all this, and fully appreciated them. With reference to the withdrawal of the troops, he was one of those who believed that it was a good and a wise

measure on the part of the English Government, but he decidedly took exception to the period when, and the manner in which, it was done. He always thought that at the particular juncture of the withdrawal taking place, it seemed to be a harsh and unkind thing to the colonists to do it. It was not the thing itself, therefore, but the mode and time at which it was done, that he always thought was to be condemned. In conclusion, he could only thank them again for having so patiently listened to his Paper, congratulating himself on the interesting discussion which it had elicited.

The proceedings then terminated.

ANNUAL GENERAL MEETING.

THE Institute held its Sixth Annual Meeting at the rooms of the Institute, 15, Strand, on Tuesday, 30th June, 1874.

His Grace the Duke of MANCHESTER, the President, took the chair at 3 p.m., and was succeeded by Sir CHARLES NICHOLSON, Bart., on His Grace being obliged to go to the House of Lords.

Amongst the Fellows of the Institute present were—A. B. Abraham, Esq.; Colonel Alcock; H. Blaine, Esq.; Rev. G. R. Badenoch; F. W. Chesson, Esq.; Colonel Cole; Steuart S. Davis, Esq.; C. Fitzgerald, Esq.; H. W. Freeland, Esq.; R. G. Haliburton, Esq.; Quintin Hogg, Esq.; Edward Jenkins, Esq., M.P.; Hugh Jamieson, Esq.; A. R. Campbell Johnston, Esq.; W. Knight, Esq.; F. P. Labillière, Esq.; Sir Richard Graves MacDonnell, K.C.M.G. and C.B.; Gisborne Molineux, Esq.; Jacob Montefiorie, Esq.; H. E. Montgomerie, Esq.; Justin McCarthy, Esq.; Hon. Virgile Naz, C.M.G.; Captain Bedford Pim, R.N., M.P.; Alex. Rivington, Esq.; S. Robjohns, Esq.; G. W. Rusden, Esq.; G. P. Serocold, Esq.; Rev. F. W. Stovin; F. A. Wiggins, Esq.; W. Walker, Esq.; J. Dennistoun Wood, Esq.; Leonard Wray, Esq.; F. Young, Esq., &c.

The Minutes of the last Annual Meeting were read and confirmed. The President then nominated Mr. Gisborne Molineux and Mr. Hugh E. Jamieson, Scrutineers to take the ballot for the Council and the other Officers of the Institute for the ensuing year.

The following report of the Council was then read by the President:—

The Council have the pleasure to report that the favourable progress made by the Institute during the year 1872–73 has continued up to the present time. The number of Fellows elected during the past year has been 124, as against 101 in the year preceding, 69 of whom are Resident and 55 Non-resident.

The Financial Statement, which will be laid before the meeting, will be seen to be satisfactory. A further sum of £100 has been invested in Colonial Securities since the date of the last Report, raising the total sum invested to £1,000.

The Council have continued to avail themselves of every opportunity of furthering questions of Imperial interest in connection with the Colonies; amongst these may be mentioned, the admission of Colonial Chambers of Commerce to the Association of the

Chambers of the United Kingdom. The Council hope that the steps which they have taken in this direction may tend to promote the establishment of these important Institutions in such Colonies as have not hitherto possessed them, as well as to secure the interchange of full and accurate information upon the Trade and Commerce of the various Colonial communities.

The Papers read before the Institute during the Session have been both interesting and important.

They comprise—

1. Colonial Aids to British Prosperity. By Mr. P. L. Simmonds.
2. Our Relations with the Ashantees, and other West African Tribes. By Sir Richard Graves MacDonnell, K.C.M.G. and C.B.
3. Settlements on the Straits of Malacca. By Mr. Leonard Wray.
4. The Timber Resources of British Guiana. By Mr. William Walker.
5. Tasmania: its Settlements and Homesteads. By Mr. J. Erskine Calder.
6. The Economic and Commercial Value of the Forests of Tasmania. By Mr. Hugh Munro Hull.
7. New Zealand: Past, Present, and Future. By Mr. Frederick Young.

In addition to these, a Paper on the Present State and Future Prospects of the Indians of British North America, by Professor Daniel Wilson, of Toronto, will be read at the Annual Meeting.

These will shortly be published and distributed amongst the Fellows.

Large donations of books, papers, and specimens of Colonial produce continue to be made to the Institute; and the Council record with gratitude their obligations to the several donors, a list of whom is appended.

Arrangements have been made, through the courtesy of the Committee of the National Club, for granting temporary club facilities to Fellows of the Institute visiting England who may require them. The particulars of these have been made known by circular.

The Council would be pleased to find that this experiment should prove sufficiently successful in its results to justify the formation of an independent Colonial Club.

The first *Conversazione* given by the Institute was held at the South Kensington Museum, on Thursday, the 11th inst. The

Council have received from various quarters congratulations on the great success which attended it, and they trust that it may be annually repeated.

The Council are fully impressed with the desirability of securing larger premises, which should better correspond with the character and increasing importance of the Institute. They are only debarred from taking steps in this direction by financial considerations. But they trust that this difficulty may ere long be removed by the accession of a number of new Fellows sufficiently large to enable them to meet the increased expenditure which must necessarily be incurred.

In conclusion, the Council refer with satisfaction to the growing interest evinced in the objects of the Institute, both in England and in the Colonies, as this affords the best proof of its usefulness, and a satisfactory guarantee for its permanence.

LIST OF DONORS.

The Duke of Manchester.	W. Clare Taylor, Esq.
The Right Hon. the Secretary of State for the Colonies.	William Walker, Esq.
Lord Alfred S. Churchill.	J. Martin Payne, Esq.
Sir William Stawell.	S. W. Silver, Esq.
Governor Weld (Western Australia).	J. G. Bourinot, Esq., of the Senate, Ottawa, Canada.
Captain Bedford Pim, R.N., M.P.	J. H. Stockqueler, Esq.
Captain J. C. R. Colomb.	H. M. Hull, Esq., of Tasmania.
Major White (Secretary General Post- office of Canada).	J. L. Ward, Esq.
Colonel Peters, of Toronto.	C. W. Eddy, Esq.
Hon. Adam Crookes, Q.C., Ontario, Canada.	R. G. Haliburton, Esq., Nova Scotia.
Gisborne Molineux, Esq.	Robt. Ker, Esq., of British Columbia.
J. V. H. Irwin, Esq.	The Royal United Service Institution.
Henry Sewell, Esq.	The East India Association.
F. P. Labillière, Esq.	The Canadian Institute.
Alexander Rivington, Esq.	The Victoria Institute.
J. A. Quinton, Esq.	The Governments of—
S. T. Davenport, Esq.	The Dominion of Canada.
J. Erskine Calder, Esq., of Tasmania.	Ontario.
J. V. O'Connor, Esq.	British Columbia.
Felix Bedingfeld, Esq., C.M.G.	South Australia.
E. Carton Booth, Esq.	New South Wales.
N. Darnell Davis, Esq., of West Coast of Africa.	New Zealand.
R. H. Whitfield, Esq., of British Guiana.	Tasmania.
Reginald H. Prance, Esq.	Western Australia.
W. M. Coghlan, Esq., of Bombay.	The Agent-General for Queensland.
William Westgarth, Esq.	„ „ New South Wales.
	„ „ South Australia.
	„ „ New Zealand.
	„ „ Canada.

Also Files of Papers from Messrs.
Silver.

From the Proprietors of the—
Home News.
Broad Arrow.
European Mail.
Argus and Australasian.
Sydney Morning Herald.
Hobart Town Mercury.

Natal Mercury.
Toronto Mail.
„ Nation.
Volunteer Review (Ottawa).
Nassau Times.
Labour News.
Royal Gazette and Colonist (Demerara).
Australasian Sketcher.
&c. &c. &c.

The PRESIDENT also read to the meeting a financial statement, which showed cash balances in hand of £361 9s. 8d.

Some discussion followed the reading of the Report, in which Mr. R. G. HALIBURTON, Mr. BADENOCH, Mr. CHESSEON, Mr. FREELAND, Mr. CAMPBELL JOHNSTON, Mr. LABILLIÈRE, and Mr. G. W. RUSDEN took part. The Report and the Hon. Treasurer's statement were unanimously adopted.

Mr. F. W. CHESSEON then stated that a Fiji Committee, &c. had been formed for the purpose of pressing on the Government the desirability of accepting the offer of the Government of the Fiji Islands to place those islands under the British flag.

It was accordingly proposed by Sir RICHARD GRAVES MACDONNELL, seconded by Mr. HALIBURTON, and carried by acclamation, "That this meeting recommends the Council to consider the expediency of promptly taking steps to convey to Her Majesty's Government the strong opinion of this meeting in favour of the annexation of the Fiji Islands to the British Empire."

The Scrutineers having made their report, the CHAIRMAN declared the following noblemen and gentlemen to constitute the Council, &c. for the ensuing year:—

PRESIDENT.

His Grace the Duke of Manchester.

VICE-PRESIDENTS.

His Royal Highness the Prince Christian, K.G.	The Right Hon. Lord Carlingford.
His Grace the Duke of Argyll, K.T.	The Right Hon. Sir Stafford H. Northcote, Bart., C.B., M.P.
His Grace the Duke of Buckingham and Chandos.	The Right Hon. Gathorne Hardy, M.P.
The Right Hon. the Earl of Carnarvon.	The Right Hon. Stephen Cave, M.P.
The Right Hon. the Earl of Granville, K.G.	The Right Hon. Lord Lisgar, G.C.B., and G.C.M.G.
The Right Hon. Viscount Bury, K.C.M.G.	The Right Hon. Viscount Monek, G.C.M.G.

COUNCILLORS.

Henry Blaine, Esq.	Gisborne Molineux, Esq.
General Sir H. C. B. Daubeney, K.C.B.	Jacob Montefiorie, Esq.
F. S. Dutton, Esq., C.M.G.	Hugh E. Montgomerie, Esq.
Humphry W. Freeland, Esq.	Sir Charles Nicholson, Bart.
R. G. Haliburton, Esq.	A. R. Roche, Esq.
Edward Jenkins, Esq., M.P.	Sir R. R. Torrens, K.C.M.G.
A. R. Campbell Johnston, Esq.	William Walker, Esq.
H. J. Jourdain, Esq.	Sir Charles Wingfield, K.C.S.I.
George Macleay, Esq., C.M.G.	Leonard Wray, Esq.
Sir Richard Graves MacDonnell, K.C.M.G., and C.B.	James A. Youl, Esq., C.M.G.
	Frederick Young, Esq.

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Sir John Rose, Bart., K.C.M.G.		Hon. Arthur Kinnaird, M.P.
James Searight, Esq.		

HONORARY TREASURER.

W. C. Sargeant, Esq.

HONORARY SECRETARY.

C. W. Eddy, Esq.

Time did not admit of the reading of the Paper by Professor DANIEL WILSON, but it was submitted to the Meeting and ordered to be printed in the Transactions of the Institute. It is as follows :—

THE PRESENT STATE AND FUTURE PROSPECTS OF THE INDIANS OF BRITISH NORTH AMERICA.

THE organisation of the British North American Possessions into the Dominion of Canada, and the consequent abolition of the exclusive rights and privileges of the Hudson's Bay Company, have, amongst other important results, very materially altered the relations which Canadians must henceforth bear to the aborigines of the country. This accordingly suggests some questions well deserving of timely consideration. The record of British relations with the native tribes of North America has hitherto compared favourably with that of the United States. But while this is due in part unquestionably to an honourable recognition of the obligations to deal not only justly but generously with the surviving remnant of the aboriginal owners of the soil, it must not be overlooked that the Imperial Government and the colonists of

British America have hitherto been placed in greatly more favourable relations to the native Indian population than the settlers in frontier states and territories of the neighbouring republic.

The great North-west, with its warlike native tribes of Chippewas, Crees, Sioux, and Blackfeet, and beyond the Rocky Mountains its Babeens, Clalams, Newatees, Cliviooks, Cowlitz, and numerous other Flathead Indians, has hitherto been under the control of the all-powerful fur-trading Company of Hudson's Bay. The interests of the fur-traders stimulated them to fair and honourable dealing with the native tribes; and while they had no motive to encourage the abandonment of their nomadic life for the civilised habits of a settled people, or even to interpose in the way which varied the monotony of the Indians' wild hunter-life, they had so thoroughly won the confidence of the natives, that tribes at open enmity with each other were ready to repose equal confidence in the Hudson Bay factors.

The late Paul Kane, author of "*Wanderings of an Artist among the Indians of North America*," informed me that when travelling beyond the Rocky Mountains he found no difficulty in transmitting his correspondence home, even when among the rudest Flathead savages. His packet, entrusted to one of the tribe, was accompanied with a small gift of tobacco, and the request to have it forwarded to Fort Garry, or other Hudson's Bay fort. The messenger—Cowlitz, Cliviook, Nasquallie, or other Indian—carried it to the frontier of his own hunting-grounds, and then sold it for so much tobacco to some Indian of another tribe; by him it was passed on, by like process of barter, till it crossed the Rocky Mountains into the territory of the Blackfeet, the Crees, and so onward to its destination, in full confidence that the officers of the Hudson's Bay Fort would sustain the credit of the White Medicine-man (for so the painter was regarded), and redeem the packet at its full value in tobacco or other equivalent.

The personal interests of the little bands of European fur-traders thus settled in the heart of a wilderness, surrounded by savage hunters, no less strongly prompted them to exclude the maddening fire-water from the vast regions under their control. Guns and ammunition, kettles, axes, knives, beads, and other trinkets, with the no less prized tobacco, were abundantly provided for barter. Even nails and the iron hoops of their barrels were traded with the Indians, and displaced the primitive tomahawk and arrow-head of flint or stone. Thus, curiously, the stone-period of a people still in the most primitive state of barbarism has been superseded by the use of metals obtained solely by barter; and without any advance

either in the knowledge of metallurgy or in the mastery of the arts which lie at the foundation of all civilisation. Long before the advent of Europeans, the Chippewas along the shores of Lake Superior had been familiar with the native copper which abounds there in the condition of pure metal. But they knew it only as a kind of malleable stone; nor have they even now learned the application of fire in their simple metallurgic processes. It formed no part of the Hudson's Bay traders' aim to advance the Indian beyond the stage of a savage hunter; to teach him any higher use of the rich prairie land than that of a wilderness inhabited by fur-bearing animals, or a grazing ground for the herds of buffalo, which furnished their annual supply of pemmican, or to familiarise him with more of the borrowed arts of civilisation than helped to facilitate the accumulation of peltries in the factory stores.

In the long-settled provinces of Upper and Lower Canada it has been wholly otherwise. There the aborigines had to be gathered together on some suitable reserve, and induced to accommodate themselves in some degree to the habits of an industrious agricultural population; or to be driven out, to wander off into the great hunting grounds of the uncleared West. The exterminating native wars, which preceded the settlement of Upper Canada, greatly facilitated this; and the tribes with which the English colonists of Ontario have had to deal have been for the most part emigrants, not greatly more recent than themselves. As to the Six Nation Indians settled on the Grand River, in Western Ontario (the most numerous and the farthest advanced in civilisation of all the Indians in the British provinces), they are a body of loyalist refugees, who followed the fortunes of their English allies on the declaration of independence by the revolted Colonies; and there is now in use, at the little Indian Church at Tuscarora, the silver communion-plate presented to their ancestors while still in the valley of the Mohawk, in the State of New York, the gift of Her Majesty Queen Anne, "to her Indian Chappel of the Mohawks."

Hence, so far as the provinces of Quebec and Ontario are concerned, the relative numerical proportions of Indian and White population have from the first been such as to render a generous policy towards the aborigines perfectly compatible with the interests of the dominant race. During the wars between the French and English colonists to the north and south of St. Lawrence, in the seventeenth and eighteenth centuries, the alliance of neighbouring Indian tribes was courted by both; and the traditions of the fidelity of the Hurons to the French, and the loyalty of the Iroquois to the English, are cherished as incentives to the faithful fulfilment

of the obligations entered into on behalf of the little remnant of the Huron nation still surviving on the river St. Charles, below Quebec; and to a liberal and generous policy towards the Six Nation Indians settled on the Grand River and elsewhere in Western Canada.

In the old provinces of Upper and Lower Canada, as well as in Nova Scotia and New Brunswick, the aborigines are mostly congregated on reserves, under the charge of Government officers of the Indian department. With few exceptions, they appear to have passed the critical stage of transition from a nomadic state to that of assimilation to the habits of settled industry of the whites. In proof of this, the official returns of recent years nearly all confirm the fact that, so far from their extinction appearing to be inevitable, there is a preponderance in the number of births over deaths. In the case of twenty-one out of twenty-six Indian settlements, the official returns report a steady numerical increase. But on this point, one important element, to be presently referred to, materially modifies the conclusions to be derived from this progressive increase of the population on the Indian reserves during the last twenty-five or thirty years.

The Indian tribes of the old provinces of the Dominion, though bearing a variety of names, may all be classed under the two essentially distinct groups of Algonquins and Iroquois. Under the former head properly rank the Miamees, and other tribes of Nova Scotia and New Brunswick; and the Chippewas, including Ottawas, Mississagas, Pottowattomies, &c. of Ontario. Under the other head have to be placed not only the Six Nations—Mohawks, Oneidas, Onondagas, Cayugas, Senecas, and Tuscaroras—but also the Wyandots, or Hurons, both of Upper and Lower Canada; though among the one were found the faithful allies of the English, while the other adhered persistently to the French; and to the deadly enmity between them was due the expulsion of the Hurons from Western Canada, and the extermination of all but an insignificant band of fugitives in the seventeenth century.

The report of the Canadian census of 1871 is only partially issued as yet, and its details relative to the Indian population have still to be looked for. How far it aims at giving any accurate approximation to the number of nomadic tribes is not apparent. But from the actual returns given as the “grand total,” some attempt must have been made to include an estimate of the unsettled tribes. When, however, we read in the report, so far as yet published, that the grand total of Indians of the four provinces is 23,035, while of half-breeds there are only *two* in all Ontario,

not one in Quebec or either of the maritime provinces, it is obvious that little reliance can be placed on the details relative to Indians.

The following statement, based on careful personal research, and a comparison of various official returns, may be accepted as a sufficiently close approximation, for the present purpose, to the numbers of the Indian population, including under the designation of settled tribes all who are to be found within districts occupied or surrounded by white settlements, as distinguished from the actual wild hunter tribes of the great North-west :—

Settled Tribes in Ontario	..	..	..	..	13,000
„ „ Quebec	..	..	..	..	5,000
„ „ Nova Scotia and New Brunswick	..	..	..	..	4,000
					<hr/> 22,000
Unsettled Tribes in Quebec	..	..	..	..	5,200
Nomadic Tribes visiting the shores of Lakes Huron and Superior	..	..	..	..	1,000
					<hr/> 6,200
Total	..	..	..	..	<hr/>28,200

In summer, numerous bodies of Indians come from the north and west to dispose of their furs, and obtain blankets, gunpowder, &c. at the trading posts on Lake Superior. At Mitchipicotin, Indians are to be found from the Moose River, and the shores of the Hudson's Bay. On the banks of the Kaministiquia, or Thunder Bay, the birch-bark wigwams accumulate at times into large villages; and I have secured Indian guides there from the Saskatchewan. But such migratory tribes scarcely ever come in contact with the settlers of the Indian reserves.

The condition of the latter, settled for the most part in little bands in the midst of a numerous and progressive white population, suggests some interesting inquiries as to their probable destiny. That it is a state of things which can exist in perpetuity is inconceivable. Little bands of Indians, ranging from sixty or seventy to three or four hundred, and only in five cases exceeding a thousand, are settled in widely-scattered localities, frequently with considerable portions of the reserve lying unproductive, in the midst of good farming districts. It is pertinently asked how far it is either wise in the general interests of the country, or beneficial to the Indians themselves, to aim at perpetuating little settlements of aborigines on a few thousand acres of reserve, ignorant of the language of the community rapidly growing up around them, and retained in a state of pupillage from which there is no emancipation. Their lands are administered by the officers

of the Indian Department as trustees for the whole ; they may use the land under certain conditions for farming, firewood, &c. but they cannot acquire personal possession. Monies obtained for portions of the reserve which may be sold are in like manner held in trust, and the annual income divided among them, or otherwise expended on their behoof ; but in all this they have no voice, but are as nearly as possible in the condition of minors.

A growing sense of the necessity for some modification of this system has been felt for a considerable time ; and in 1857 "An Act to Encourage the Gradual Civilisation of the Indian Tribes," received the Royal Assent. This Act avowedly aims at the "gradual removal of all legal distinctions between them and Her Majesty's other Canadian subjects ; and to facilitate the acquisition of property, and of the rights accompanying it, by such individual members of the said tribes as shall be found to desire such encouragement, and to have deserved it."

The Act accordingly provides the legal process whereby an educated Indian may be emancipated from his condition of tutelage, and placed in all respects on a footing of equality with his white neighbours, without forfeiting his vested rights in the common property of his people. Provision is also made for the issue of letters patent, granting to any Indian of approved sobriety and integrity, a life estate in the land allotted to him with the reserve. Though he cannot sell this or alienate it to anyone of white blood, he may dispose of it by will to his children ; or in case of his dying intestate, it descends to his children in fee simple, according to the laws of inheritance of the province.

The motives leading to such enactments are obviously humane and disinterested. But the necessity of guarding the inexperienced Indian from the schemes of designing whites, and the difficulties in other respects in dealing with semi-civilised tribes in immediate contact with an industrious community, are apparent from the dangers which such legislation is felt to create. Its tendency is to enfranchise, and so withdraw from the tribe the very men best fitted by their intelligence and virtues to be the advisers and leaders of their own people. There is, however, no great choice left. Notwithstanding all the philanthropic zeal of their friends and the best efforts of officers of the Indian Department, the inevitable tendency of the system of isolation and wardship on the Indian reserves must be to repress that individual energy and forethought which are the elements of success among the white settlers. If bands of emigrants from England, Scotland, Germany, France, or Norway, were segregated under a similar system, and

precluded from free interchange and traffic with the rest of the community ; while no degree of indolence or vice could alienate from them their share in the common revenue, the results would not greatly differ from what is now seen on many Indian reserves.

Hence the apparent breach of faith in the repeated removal of Indians from reserves on which white settlers are encroaching, and which in the United States has repeatedly resulted in bloodshed and open war. In Canada such results have been averted, in part at least, unquestionably from the care exercised alike by the Imperial and Colonial authorities to protect the aborigines, as far as possible from injustice, and to delay action until their own concurrence in the proposed change has been obtained. But it cannot be overlooked that the small numbers usually embraced in each band, and their dependent condition on their superintendents, have greatly facilitated such transfers.

The annual distribution of presents by the British Government to the Indian tribes long formed an incident of curious significance. For many years the Great Manitoulin Island, on Lake Huron, was the scene of this assembly of the Red Indian tribes, whither chiefs and warriors, not only of British North America, but of remote tribes of the United States, came by forest, prairie, river, and lake, to this grand Olympic festival of the Red Men of the New World. It realised in very literal fashion the picture drawn by the poet Longfellow, when

“ Gitche Manito, the mighty,
Calls the tribes of men together,
Calls the warriors to his council.”

To the ethnologist or the artist, it furnished materials for study of the most interesting and attractive character. But at best it involved a large expenditure of money, leading to no very manifest results so far as the Indians were concerned ; and the appointed place of gathering had latterly become the rendezvous of unscrupulous white traders, who flocked thither like vultures to the battle-field. To these in the majority of cases the presents were transferred in exchange for gaudy trifles, or the deleterious fire-water. It was wisely judged, therefore, that the money could be more beneficially expended on behalf of the settled tribes ; and after due warning, the last distribution of presents took place in 1855. A scheme was thereafter matured for transferring the whole of the Indians of Western Canada to the Manitoulin Islands, where it was assumed that, in complete isolation from the white

settlements, they could be protected under the care of their superintendents, and gradually brought to embrace the habits of a civilised people. But such innovations on long-existing usage could not be effected without a sense of wrong on the part of those most deeply concerned.

The annual distribution of presents had acquired in their estimation the aspect of the fulfilment of a perpetual pledge guaranteed by the honour of the British Crown; and travellers among tribes in the far West have repeatedly found native chiefs giving expression to their disappointments in some such terms as these: "The Indian nations were promised the annual renewal of their presents as long as the sun shone, water flowed, and trees grew. The sun still shines upon us, the rivers flow on, and we see the trees renew their leaves; but we no longer receive our gifts from our great mother beyond the sea."

The breaking up of the old settlements on the Indian reserves was a project, the difficulty of which could only be fully appreciated by those most intimate with the Indians' habits and modes of thought. Strong local attachment is by no means incompatible with the habits of a nomade people; and where they have become enervated by long settlement under the care of their superintendents, it forms one of their predominating passions. But a body of upwards of two thousand Chippewas and Ottawas were gathered on the Manitoulin Island: a chapel and school-house were built, log-houses were reared, and preparations made for turning to the best account this proposed permanent refuge and home of the expatriated tribes of Canada. But, unhappily, before many years transpired, white explorers discovered on the Manitoulin Islands indications of a valuable oil region. The islands, moreover, lie directly on the great water-highway to Lake Superior and Manitoba; and so there, as elsewhere, it becomes obvious that the poor Indian must either cast in his lot with the white settler, or vanish, like his native forests, before the progress of European civilisation.

This accordingly suggests a question affecting the whole relations of British and European colonists generally to the native population of new lands settled and colonised by them. Not only English, Scotch, and Irish, but German, Norwegian, French, Polish, Russian, and Italian emigrants flock in hundreds and thousands to the New World, merge in a single generation in the common stock, and in the third generation learn to speak of themselves as "Anglo-Saxon!" The investigations of British ethnologists have well-nigh put an end to the supposed purity of an Anglo-Saxon and

Anglo-Scandinavian population in all but the assumed purely celtic areas of the British Islands; and the accepted subdivision into Xanthochroi and Melanochroi very clearly points to a recognition of the survival in the mixed population of modern Britain of no slight race-element derived from aborigines of Europe anterior to the advent of Celt or Teuton. The power of absorption and assimilation of a predominant race is great; and ethnological displacement is no more wholly a process of extinction now than in primitive times, though intermixture must ever be greatest and most easily effected where the ethnical distinctions are least strongly marked, and the conditions of civilisation are nearly akin.

That whole tribes and nations of the American aborigines have been exterminated in the process of colonisation of the New World is not to be questioned. Nevertheless, long and careful study of the subject has satisfied me that a much larger amount of absorption of the Indian into the Anglo-American race has occurred than is generally recognised.

Fully to appreciate this, it is necessary to retrace the course of events by which America has been transferred to the descendants of European Colonists. At every fresh stage of colonisation, or of pioneering into the wild West, the work has necessarily been accomplished by hardy young adventurers, or the hunters and trappers of the clearing. It is rare indeed for such to be accompanied by wives or daughters. Where they find a home they take to themselves wives from among the native women; and their offspring share in whatever advantages the father transplants with him to this home in the wilderness. To such mingling of blood, in its least favourable aspects, the prejudices of the Indian present little obstacle. Henry, in his narrative of travel among the Cristineaux on Lake Winipagoos upwards of a century ago, after describing the dress and allurements of the women, adds: "One of the chiefs assured me that the children borne by their women to Europeans were bolder warriors and better hunters than themselves." This idea recurs in various forms. The half-breed lumberers and trappers are valued throughout Canada for their hardihood and patient endurance; the half-breed hunters and trappers are equally esteemed in the Hudson's Bay territory; and beyond their remotest forts, Dr. Kane reports as his experience within the Arctic circle, that "the half-breeds of the coast rival the Esquimaux in their powers of endurance."

Thus far, then, it appears that the admixture of blood is in no degree prejudicial to the native race. But whatever be the characteristic of the Indian half-breed, the fact is unquestionable that

all along the widening outskirts of the new clearings, and wherever an outlying trading or hunting post is established, a fringe of half-breed population is to be found marking the transitional border—land which is passing away from its aboriginal claimants. On first visiting Sault Ste.-Marie, at the entrance to Lake Superior, in 1855, I was struck to find myself in the midst of a considerable population, with all the ordinary characteristics of a frontier town, of whom few had not obvious traces of Indian blood in their veins, from the immediate Metis, or half-breed, to the slightly-marked, remote descendant of Indian maternity, recognisable by the abundant straight black hair, the square jaw, and a singular watery glaze in the dark eye, not unlike that of an English gipsy. At all white settlements on the frontiers, or in the vicinity of Indian reserves, a similar mixed population is to be seen, employed not only as fishers, trappers, and lumberers, but engaged on equal terms with the whites in the trade and business of the place. In this condition the population of every frontier settlement exists; and, but for the enormous direct emigration from Europe, must have largely affected the Anglo-American race. For while, as the new settlements fill up with a permanent population, the uncivilised Indians retire into the forest, the civilised half-breeds cast in their lot with the settlers. No prejudice interferes with their enjoyment of a perfect social equality, and they disappear at last not by extinction, but absorption. The traces of Indian maternity are gradually effaced by the numerical preponderance of the European race; but the native element survives in the mixed community, just as the Turanian, Iberian, or other pre-historic races, still perpetuate their ethnical characteristics in the Melanochroi of Western Europe.

But such traces are by no means confined to frontier settlements. Among Canadians of mixed blood there are men at the bar and in the Legislature, in the Church, in the medical profession, holding rank in the army, in aldermanic and other civic offices, and engaged in active trade and commerce. A curious case was recently brought before the law courts in Ontario. A son of the chief of the Wyandot Indians settled in Western Canada, left the reserves of his tribe, engaged in business, and acquired a large amount of real estate and personal property. He won for himself, moreover, such general respect that he was elected Reeve of Anderdon by a considerable majority over a white candidate. Thereupon his rival applied to have him unseated, on the plea that a person of Indian blood was not a citizen in the eye of the law. Fortunately the Judge took a common-sense view of the case, and

decided that as he held a sufficient property-qualification within the county the election was valid.

That an Indian ceases to be such in the eye of the law, and in all practical relations to society, when he becomes an educated, industrious member of the general community, and competes not only for its privileges but for its highest honours, is inevitable. A certain degree of romance, moreover, attaches to the Indian blood, when accompanied with the culture and civilisation of the European. The descendants of Brant and other distinguished native chiefs are still proud to claim their Indian lineage, where the physical traces of such an ancestry would escape the eye of a common observer. I have recognised the traces of Indian descent among ladies of the most attractive refinement and intelligence, and with certain mental as well as physical traits which added to the charm of their society. I am not less familiar with traces of similar descent in the gay assemblies of a Governor-General's receptions in the halls of Legislature, in the diocesan synods, and other ecclesiastical assemblies, and amongst distinguished undergraduates of Canadian Universities. The relations of the French colonists of Lower Canada to the natives were long of a more kindly nature than can be possible in the intercourse between Indian tribes and recently-arrived European emigrants. The gentler and less progressive habits of the French habitant, moreover, lead to less direct collision with the Indians settled in his midst. Hence in the province of Quebec, half-breeds and men and women of partial Indian blood are frequently to be met with in all ranks of life, while certain slighter traces discernible in the hair, the eye, the cheek-bone, and peculiar mouth, as well as certain traits of Indian character, suggest to the close observer remote indications of the admixture of blood.

The same circumstances continue to a considerable extent still in all the newer settlements to involve the inevitable production of a frontier race of half-breeds. Even the cruellest exterminations of hostile tribes have rarely been carried out so effectually as to preclude this. In New England, for example, after the desolating war of 1637, which resulted in the extinction of the Pequot tribe, Winthrop thus summarily records the policy of the victors: "We sent the male children to Bermuda by Mr. William Pierce, and the women and maid children are disposed about in the towns." Such a female population could not grow up in a young Colony, with the wonted preponderance of males, and leave no traces in subsequent generations.

The Indians of Vancouver's Island and British Columbia were

estimated in 1860 to number about 75,000. The observations of Mr. Paul Kane, in 1846, showed that a half-breed population already existed there in the neighbourhood of each Hudson's Bay Fort, though too insignificant in numbers to greatly affect the native population ; but at the later date the first influx of settlers had been attracted by the reported wealth of the gold diggings, and in that year the Missionary at Port Douglas reports to the Bishop of Columbia the following return of settlers within his mission field :—

Citizens of the United States	73
Chinese	37
British subjects	35
Mexicans and Spaniards	29
French and Italians	16
Coloured men	8
Central Europe	4
Northern Europe.. .. .	4

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Of these the sexes were —males, 204 ; females, 2. The admixture of blood with the native population consequent on such a disproportion of the sexes is inevitable ; and though such a population is least likely to leave behind it any permanent traces among settled civilised colonists, yet the condition of things which it presents illustrates the social life of every frontier settlement of the New World. Everywhere the colonisation of the outlying territory begins with a migration of males, and by and by the cry comes from Australia, Canada, and elsewhere, for stimulated female emigration. It is a state of things old as the dispersion of the human race, and typified in such ancient legends as the Roman Rape of the Sabines. The abstract of the United States' census of 1860 showed that the old settled states of New England are affected even more than European countries by this inevitable source of the disparity of the sexes. In Massachusetts, at that date, the females outnumbered the males by upwards of 37,000 ; while in Indiana, on the contrary, they fell short of the males by 48,000.

In the latter case, on a frontier state, where the services of the Indian women must necessarily be courted in any attempt at domestic life, intermixture between the native and intruding races is inevitable, and the feeling with which it is regarded finds expression constantly through the genuine New World lyrics of Joaquin Miller, with his "brown bride won from an Indian town :"

"Where some were blonde and some were brown,
And all as brave as Sioux."

Thus the same process still repeats itself along the widening frontier of the Far West, which has been in operation on the American Continent from the days of Columbus and Cabot. Hardy bands of pioneer adventurers, or the solitary hunter and trapper, wander forth to brave the dangers of the prairie or savage-haunted forest, and to such, an Indian bride proves the fittest mate. Of the mixed offspring a portion cling to the fortunes of the mother's race, and are involved in its fate; but more adhere to those of the white father, share with him the vicissitudes of border life, and cast in their lot with the first nucleus of a settled community. As the border land slowly recedes into the further West, new settlers crowd into the clearing; the little cluster of primitive log-huts grows up into the city, perhaps the capital of a State, and with a new generation the traces of Indian blood are well-nigh forgotten. If any portion of the aboriginal owners of the soil linger in the neighbourhood, they are no less affected by the predominant intruding race.

In the boyhood of the older generation of Toronto, hundreds of Indians, including those of the old Mississauga tribe, were to be seen about the streets. Now, at rare intervals, two or three squaws, in round hats, blue blankets, and Indian leggings, attract attention rather by their dress than their features, for in complexion they are nearly as white as those of pure European descent. The same is the case on all the oldest Indian reserves. The Hurons of Lorette, for example, are reported to have considerably increased in numbers in the interval between 1844 and the last census. But while the Commissioners refer to them as a band of Indians "the most advanced in civilisation in the whole of Canada," they add that "they have, by the intermixture of white blood, so far lost the original purity of race as scarcely to be considered as Indians." This admixture of the native and European races has been protracted through a period of upwards of two centuries, till they have lost their Indian language, and substituted for it a French patois. Their hereditary right to a share in certain Indian funds forms the sole inducement to perpetuate their descent from the Huron nation; but for this they would long since have merged in the common stock. Yet the results would not have been eradicated, but only lost sight of. Their baptismal registers, and genealogical traditions, supply the record of a practical, though undesigned, experiment as to the influence of hybridity on the perpetuation of the race, and show the mixed descendants of Huron and French blood still, after a lapse of upwards of two centuries, betraying no traces of a tendency towards infertility or extinction.

In the maritime provinces the Micmacs are the representatives of the aboriginal owners of the soil. Small encampments of them may be encountered in summer on the lower St. Lawrence, busily engaged in the manufacture of staves, barrel-hoops, axe-handles, and baskets of various kinds, which they dispose of, with much shrewdness, to the traders of Quebec, and the smaller towns on the Gulf. So far as I have seen, the pure blood Micmac has more of the dark red, in contrast to the prevalent olive hue, than any other Indians. But the Micmacs of Nova Scotia and New Brunswick reveal the same evidence of inevitable amalgamation with the predominant race as elsewhere. Dr. Dawson, of Montreal, recently applied to the Rev. S. T. Rand, the devoted missionary to the Indians of Nova Scotia, to obtain for him a photograph of a pure blood representative of the tribe, and he had some difficulty in finding a single example.

But whatever questions may arise relative to the surviving representatives of the aborigines in long-settled provinces, no other difficulties are to be apprehended in dealing with them than those which result from the honest desire to act not only justly, but generously, towards the last survivors of a race we have supplanted. It is otherwise with the new provinces now forming in the great North-West. Nor has the Canadian Government failed to recognise the special difficulties to be apprehended from the new relations in which it is placed with tribes of wild Indians transferred to its jurisdiction along with the territory acquired from the Hudson's Bay Company. Returns made to an address of the House of Commons at Ottawa, dated March, 1873, disclose the jealousies and suspicions of the native tribes, and the anxiety evinced by the Government officials to remove all just grounds of complaint. Mr. Beatty, a contractor for certain surveys on the Upper Assiniboine, reports that the Portage Indians, under their chief, Yellow Quill, had absolutely forbidden any survey of their lands, and driven him and his party off the field. The Lieutenant-Governor thereafter held an interview with Yellow Quill and a party of his braves, and after a long *pow-wow* succeeded in pacifying him. Again, a party of about two thousand Sioux are reported to have left in high dudgeon, with a threat to return in force next spring; and the Hon. Alexander Morris—now Lieutenant-Governor of Manitoba—writes to the provincial secretary at Ottawa, that “the Red Lake Indians on the American side have been sending tobacco to the Sioux in our territory, as it is believed, with the view of common action with regard to the Boundary Survey.”

The co-operation of representatives of the United States, and of

the Canadian or British Government, in the Boundary Commission, has excited the intensest jealousy among all the native Indian tribes on both sides of the line. It is scarcely nine years since the State of Minnesota was desolated by a cruel war, carried on by the Sioux at the instigation, as was then affirmed, of Southern agents, with a view to a diversion in favour of the South during the great Civil War. A large number of the Sioux have since crossed the boundary, and settled within the British lines; and the Hon. Mr. Morris writes from Fort Garry, in December last: "Some of the Sioux assist the white settlers as labourers in the summer. They have asked for land, and were led to believe that they would be assigned a reserve, and, if so, they would plant crops, and could then be removed from the Settlement." But Mr. Morris specially draws the attention of the provincial authorities to the excited state apparent among all the Western tribes, and adds: "I believe it to be in part created by the Boundary Commission. They do not understand it, and think the two nations are uniting against them."

But with the wild Sioux who, a few years since, perpetrated the bloody massacres which desolated Western Minnesota, already furnishing farm labourers for the British settlers of Manitoba, it is easy to recognise the first indications of a marvellous revolution. The Great Prairie lands afford facilities for the rudest tribes entering upon agricultural operations in a way that was impossible among those of the thickly-wooded provinces of Ontario and Quebec; and already Commissioners have negotiated arrangements with all the wild tribes of Manitoba; and positive treaties have been entered into, with a view not only to the cession of their rights to the land required for settlement, but to themselves abandoning the chase, and settling down to a peaceful agricultural life. But this cannot be effected without much judgment and patient forbearance on the part of Government officials. Mr. Molyneux St. John, an Indian Agent, thus writes in February of the present year (1873): "The full demands of the Indians cannot be complied with; but there is, nevertheless, a certain paradox in asking a wild Indian, who has hitherto gained his livelihood by hunting and trapping, to settle down on a reservation and cultivate the land, without at the same time offering him some means of making his living. As they say themselves: 'We cannot tear down the trees and build huts with our teeth, we cannot break the prairie with our hands, nor reap the harvest, if we had grown it, with our knives.'"

Again, the Indian Agent directs attention to the wide diversity

in habits, or condition, of different Indian tribes. The Portage Indians are hunters, living in buffalo-skin lodges on the prairies; the St. Peter Indians form permanent settlements, not only of birch-bark wigwams, but many of them have built log-houses for themselves. Even among the tribes already settling down to steady agricultural labour, such as the Saulteux and the Swampies of Manitoba, a very great difference both in sentiments and customs prevails.

But the work of settlement and incipient civilisation proceeds apace. Thirty-four Indian families from one tribe in Pembina are reported by the Agent as demanding their allocation of farms; the chiefs and headmen of other tribes are in negotiation for farming implements, stock, &c.; and some of their demands curiously illustrate the form in which the new life thus opening up to them presents its most tempting aspects. Hoes, axes, and other indispensable implements have been readily granted to them. Ploughs, harrows, and oxen are in request, and have been conceded or promised, where the Government Agent is satisfied that they will be turned to good account. But in special demand is "a bull and cow for each chief, and a boar for each reserve." "There was another promise," says Mr. Molyneux St. John, in writing to the Indian Superintendent, "a promise the Indians never omit to mention—that they should be supplied with a male and female of each animal used by a farmer."

But besides the proper agricultural requisites of oxen, ploughs, breeding-stock, seed, and farming utensils generally, every chief demands a distinguishing dress for himself and two of his braves; and, above all—with an appreciation of the essential symbol of civilised respectability which cannot fail to gratify one foremost English philosopher—the treaty signed at the Lower Fort on the 3rd of August, 1871, has since been supplemented by a memorandum guaranteeing "for each chief, except Yellow Quill, a buggy"—(*i.e.* a gig!).

Sir John Lubbock, and other searchers after an initial civilisation, are puzzled at times to determine wherein its essential essence shall be assumed. But when the chiefs of the wild tribes of the North-west mount their gigs, it is not to be doubted that a new order of things is beginning there. Here, then, we see the inauguration of a condition of things which must lead to the settlement of a numerous native population alongside of the white colonists of the new provinces to be formed between Lake Superior and the Rocky Mountains, and that under circumstances peculiarly favouring the intermixture of the races. One of the Indian Agents, in

writing to Ottawa, says: "The Indian can, of course, be dealt with on the basis: '*\$3 a head, and continue hunting and fishing till you die, or are civilised off West*;' or he can be induced to settle on his reserve, and add to the working portion of the population." The latter more generous and philanthropic process is that now aimed at; and the experience on the older reserves of Ontario and Quebec should teach the authorities rather to favour and facilitate the interblending of the white and red population of the prairies, than to foster rival and conflicting interests, which are sure to end in impeding the white settlers, and injuring still more the civilised Indians.

But the intermingling of the red and white races is no novelty in the region where Manitoba now invites the influx of European emigration. There has long existed on the Red River a settlement begun in 1811 under the auspices of Lord Selkirk, and afterwards transferred to the Hudson's Bay Company, originally formed of hardy Orkney men and Sutherlandshire Highlanders. But in 1813 the population did not exceed a hundred in number; and in the subsequent rivalry between the Hudson's Bay and North-West Companies, no effort was spared to break up the infant colony. On the amalgamation of the companies, the settlement revived; and immediately prior to the great fur company's supremacy coming to an end, it numbered upwards of two thousand whites, chiefly occupied in farming, or in the service of the company. At a later date, another settlement was formed on the Assiniboine rivers, chiefly by French Canadians. In those, as at the forts and trading-posts of the Hudson's Bay Company, the settlers consisted chiefly of young men. They had no choice but to wed or cohabit with the Indian women; and the result has been, not only the growth of a half-breed population greatly outnumbering the whites, but the formation of a tribe of half-breeds, divided into two distinct classes, according to their Scottish or French paternity, who have hitherto kept themselves distinct in manners, habits, and allegiance, alike from the whites and the Indians.

This rise of an independent half-breed tribe is one of the most remarkable results of the great, though undesigned, ethnological experiment which has been in progress ever since the meeting of the diverse races of the Old and New World on the continent of America; and now that the peculiar circumstances which favoured this result have come to an end, it is important to note the most striking phases presented by it, before they are modified or effaced by the influx of European emigration.

A few years since I printed and circulated as widely as possible,

a set of queries relative to the Indian and half-breed population both of Canada and the Hudson's Bay territory; and from the returns made to me by Hudson's Bay factors, missionaries, and others, most of the following results are derived. The number of the settled population, either half-breed or more or less of Indian blood, in Red River and the surrounding settlements was about 7,200. The intermarriage there has been chiefly with Indian women of the plain Crees, though alliances also occur with the Swampies (another branch of the Crees), and with Sioux, Chipewewa, and Blackfeet women. But the most noticeable differences are traceable to the white paternity. The French half-breeds have more demonstrativeness and vivacity, but they are reported to take less readily to the steady drudgery of the farm than those of Scotch descent. But at best, the temptations of a border settlement, with its buffalo hunts and its chief market for peltries, must greatly interfere with the industrious habits common in old settled agricultural communities.

A few of the special facts ascertained as the result of my researches may be noted here. The half-breeds are a large and robust race, with greater powers of endurance than the native Indian. Mr. S. J. Dawson, of the Red River Exploring Expedition, speaks of the French half-breeds as a gigantic race as compared with the French Canadians of Lower Canada. Professor Hind refers in equally strong language to their great physical powers and vigorous muscular developments; and the venerable Archdeacon Hunter, of Red River, replies in answer to my inquiry: "In what respects do the half-breed Indians differ from the pure Indians as to habits of life, courage, strength, increase of numbers, &c.?" "They are superior in every respect, both mentally and physically." Much concurrent evidence points to the fact that the families descended from mixed parentage are larger than those of the whites; and though the results are in some degree counteracted by a tendency to consumption, yet it does not amount to such a source of diminution on the whole as to interfere with their steady numerical increase. One of the questions circulated by me was in this form: "State any facts tending to prove or disprove that the offspring descended from mixed white and Indian blood fails in a few generations." To this the Rev. J. Gilmour answers: "I know many large and healthy families of partial Indian blood, and have formed the opinion that they are likely to perpetuate a hardy race." The venerable Archdeacon Hunter, familiar with the facts by long residence as a clergyman of the Roman Catholic Church among the mixed population of the Red River Settlement, answers

still more decidedly: "The offspring descended from mixed white and Indian blood does not fail, but, generally speaking, by inter-marriages it becomes very difficult to determine whether they are pure whites or half-breeds." Living, however, for many years among a people in whom the Indian traits are more or less traceable, it is probable that Archdeacon Hunter is less attracted by the modified, ample black hair, the large, full mouth, and the dark, though gentle and softly expressive eye, which strikes a stranger on first coming among any frontier population of mixed blood. The half-breeds also retain much of the reserved and unimpressible manner of the Indian, though a good deal of intercourse with the native race has led me to the conclusion that this is more of an acquired habit than a strictly hereditary trait—a piece of Indian education akin to certain habits of social life universally inculcated among ourselves. When off his guard, the wild Indian betrays great inquisitiveness, and when relaxing over the camp-fire after a laborious day gives free play to mirth and loquacity.

So far, however, much that is here said applies to the mixed population of the Red River Settlement, living on a perfect equality with the white settlers, and constituting an integral part of the colony. They are neither to be confounded with the remarkable tribe of half-breeds, nor with the Indians of mixed blood already described on older Canadian reserves. Remote as this settlement has hitherto been from ordinary centres of colonisation, and inaccessible except through the agency of the Hudson's Bay Company, every tendency has been to encourage the introduction of the young adventurer, trapper, or *voyageur*, rather than the married settler. The habits of life incident to the fur trade made the distinction greatly less marked between the Indian and the white man; and thus a people, as intermediate in habits and mode of life as in blood from those of the old settled provinces of Upper and Lower Canada, grew up unchecked. Much property is now possessed by those of mixed blood. Their young men have in some cases been sent to the colleges of Canada, and, after creditably distinguishing themselves, have returned to lend their aid in the progress of the settlement. Thus a favourable concurrence of circumstances has in all respects tended to give ample opportunity for testing the experiment of intermingling the blood of Europe and America, and raising up a civilised race peculiar to its soil.

But besides this civilised race, partaking of all the advantages which European culture and habits of industry could transfer to the wilderness, there remains the essentially distinct half-breed race—the offspring born to native women as the inevitable results

of such a social condition as pertains to the occupants of the forts and trading-posts of that remote region. These half-breed buffalo hunters are wholly distinct from the civilised settlers, and yet more nearly related to them than to the wild Indian tribes. They belong to the settlement, possess land, and cultivate farms, though their agricultural labours are very much subordinated to the claims of the chase, and they scarcely aim at more than supplying their own wants. They are divided into two bands, and number in all between six and seven thousand. The two divisions have their separate tribal organisations and distinct hunting-grounds. In 1849 the White Horse plain half-breeds on the Strayenne River, Dacotah territory, rendered the following returns to an officer appointed to take the census:—"Seven hundred half-breeds, two hundred Indians, six hundred and three carts, six hundred horses, two hundred oxen, four hundred dogs, and one cat." This may illustrate the general character of a people partaking of the nomade habits of the Indian, and yet possessed of much movable property and real estate. They are a hardy race, capable of enduring the greatest privations. They have adopted the Roman Catholic faith, and specially covet the presence of a priest with them when on their hunting expeditions. The mass is then celebrated on the open prairie, and is viewed as a guarantee of success in the hunting-field. On such expeditions, it has to be borne in view, they are not tempted either by mere love of the chase or by the prospect of a supply of game: winter-hunting supplies to the trapper the valued peltries of the fur-bearing animals. But on the summer and autumn buffalo hunts depend the supply of the pemmican, which furnishes one of the main resources of the whole Hudson's Bay population. The summer hunt keeps them abroad on the prairie from about the 15th of June to the end of August, and smaller bands resume the hunt in the autumn. With this as the favourite and engrossing work of the tribe, it is inevitable that farming can be carried on only in the most desultory fashion. Nevertheless, the severity of the winter compels them to make provision for the numerous horses and oxen on which the summer hunt depends; and thus habits of industry and forethought are engendered.

The half-breed hunters regard the Sioux and Blackfeet as their natural enemies, and carry on warfare with them much after the fashion of the Indian tribes that have acquired firearms and horses; but they give proof of their "Christian" civilisation by taking no scalps. In the field, whether preparing for hunting or war, the superiority of the half-breeds is strikingly apparent. They

then display a discipline, courage, and self-control, of which the wild Sioux, Crees, or Blackfeet are wholly incapable; and they accordingly look with undisguised contempt on their Indian foes.

Such are some of the most noticeable characteristics of this interesting race, called into being by the contact of the European with the native tribes of the forest and prairie. With so many of the elements of civilisation which it is found so hard to introduce among the most intelligent native tribes, an aptitude for social organisation, and a thorough independence of all external superintendence or control, there seems no reason to doubt that here is an example of an intermediate race, combining characteristics derived from two extremely diverse types of man, with all apparent promise of perpetuity and increase, if they could have been secured in the exclusive occupation of the region in which they have originated. They know the use and value of money; are familiar with the idea of personal property in land; have learned to carry out agricultural operations on a scale sufficient to raise the requisite root and grain crops, and the stock so much in demand for their peculiar occupation in the great hunting field of the buffalo-haunted prairie. With the gradual failure of the buffalo herds they would be necessitated to devote more time and attention to their farms; and thus they have within themselves every guarantee for endurance. But, situated as they are, the half-breeds of Manitoba can no more hope to perpetuate themselves as a distinct race than those of the older provinces. Already the change has begun which involves their disappearance. Within the settlement itself the white population intermarry freely with those of mixed blood, and their offspring share with perfect equality all the rights and privileges of the community. The barrier between them and the tribe of half-breed buffalo-hunters is too slight, in what must still retain for a considerable period the characteristics of a frontier province, to create any insurmountable impediment to their intermingling. With the increase of emigration the same results must follow, as have already occurred in all the older settlements from the New England shores or the St. Lawrence, westward to the remotest border clearings. The last traces of the red blood will disappear, yet not wholly by extinction. The minority, passing through this transitional half-breed stage, will have been absorbed into the new generations, but not without leaving some traces on the predominant race, and perhaps helping to adapt it to its new home.

It has been a favourite idea with some physiologists that in the undoubted developments of something like an essentially distinct Anglo-American type of man, there is a certain approximation to

the Indian type. Dr. Carpenter, in his "Essay on the Varieties of Mankind," lays claim to originality in the idea "that the conformation of the cranium seems to have undergone a certain amount of alteration, even in the Anglo-Saxon race of the United States, which assimilates it in some degree to that of the aboriginal inhabitants." This he dwells on in some detail, and arrives at what he seems to regard as an indisputable conclusion, that the peculiar American physiognomy to which he adverts presents a transition, however slight, toward that of the North-American Indian. I doubt if such an idea would ever have occurred to a physiologist of Canada or of New England, to whom abundant opportunities for comparing the Indian and Anglo-American features, and of noting the actual transitional forms between the two, are accessible. But if such examples can be clearly recognised, they may be assigned with more probability to a reverting to the Indian of some red ancestress whose blood is transmitted to a late descendant.

To this, I conceive, we must look as the inevitable and by no means unsatisfactory solution of a question which has troubled the minds of many philanthropists. Among the native races with which European colonisation has brought us into contact in Africa, Australia, and elsewhere, there are many too low in the scale of humanity to be welcomed as an ethnical element in the young nations that are supplanting them. But a merely savage stage is not necessarily an evidence of incapacity. The Maori of New Zealand, with his traditional legends and poetry, is not without resemblances to the cruel but vigorous pagan Northmen by whom the half-civilised Anglo-Saxons were wasted, and then reinvigorated. It cannot but excite regret in the thoughtful mind that a race with such unmistakable aptitudes for civilisation should utterly perish.

But we have either to expatriate, exterminate, or absorb the races with which, in the progress of colonisation, we are thus brought in contact; and the last-named process will be accelerated by proceedings most consonant to the best interests of the race which we have now specially in view. The Indian is guarded against the acquisition of an absolute personal right in his share of the common reserve of his tribe, from the just apprehension that he would speedily be ousted from it by some crafty land-speculator. Yet such a state of pupillage must come to an end sometime or other; and it is well that steps are already being taken which aim at such a result. Free-trade in land may, I conceive, be beneficially introduced among themselves, without at present allowing of the

alienation of land from the tribe or band. Let the industrious provident Indian acquire it, as against his idle, improvident, or dissolute fellow-Indian. Still more, let the rising generation be admitted as speedily as possible beyond the Indian pale into the general community. This can be best done by apprenticing Indian boys to mechanical or other trades, for which they show an aptitude. The Rev. J. Maurault, Roman Catholic Missionary at St. Francis, says: "Many suppose that our Indians are intellectually weak and disqualified for business. This is a great mistake. Certainly, as far as the Abenakis are concerned, they are nearly all keen, subtle, and very intelligent. Let them obtain complete freedom, and this impression will soon disappear. Intercourse with the whites will develop their talents for commerce. No doubt some of them would make an improper use of their liberty, but they would be but few in number. Everywhere, and in all countries, men are to be found, weak, purposeless, and unwilling to understand their own interests; but I can certify that the Abenakis generally are superior in intelligence to the Canadians. I have remarked that nearly all those who have left their native village to go and live elsewhere free, have profited by the change. I know of several who have bought farms in our neighbourhood, and are now living in comfort. Others have emigrated to the States, where they have almost all prospered, and where several of them have raised themselves to honourable positions." Everywhere he sees the Indian, when left to his own resources, thriving. "But here," he says—*i.e.* on the Indian reserve—"we see nothing of the kind. Nevertheless, I observe a large number of young men, clever, intelligent, and gifted with remarkable talents." Of the Abenakis of St. Francis, it should be added that there is not a pure-blood Indian among them. They are already, physically as well as morally, in the transitional stage, and, to all appearance, abundantly prepared for the final process of emancipation, and casting in their lot with the rest of the community.

By such a process the native race will unquestionably disappear as such; but it will not perish, like the wild races, extirpated by disease, dissipation, or deliberate massacre. It will be taken up, by absorption, into the common stock, just as the specific nationality of English, Scot, German, or French, is merged in the Anglo-American or Canadian people. It is the same process by which the world's old historic and unhistoric races were, in earlier centuries, blended into elements, out of which younger nations have sprung. The statistics of the most civilised and long-settled Indian tribes of Upper and Lower Canada give no indication that the in-

termixture of red and white blood—though there, to a considerable extent, carried out under unfavourable circumstances—leads to degeneracy or sterility. Mr. Lewis H. Morgan—well known for his valuable researches into the tribal systems of relationship and consanguinity—in replying to inquiries I had submitted to him relative to the extent of hybridity traceable in the United States, remarks, as the result of peculiarly favourable opportunities of observation, that the native races “have taken up enough white blood in past generations, through the traders and frontier men, since 1700, to lighten their colour from one-sixth to one-fourth.” So that he entertains the belief that the wild tribes have undergone considerable modification by this means; and he confirms, by his own experience, the number of half-breeds and quarter-breeds to be seen around every Government fort in the Indian territory. The ethnical results impressed him everywhere favourably; and he closes his remarks with the hope that he may see the Indians of the United States acquiring property, education, and a permanent settlement, with honourable marriages; for, he says, “I think we can absorb a large portion of this Indian blood, with an increase of physical health and strength, and no intellectual detriment.”

Such, then, is one element affecting the condition and future prospects of the native races of the New World which has not, I conceive, received the attention it deserves. The results of the meeting and intermingling of the native and intruding races, especially in the inartificial habits of border life, are much more extensive and lasting than the ordinary observer has any conception of, and have led to the transfer of a larger amount of red blood to the common stock than has received any adequate recognition. If the triumphs of modern progress in the New World were attained by means such as those resorted to by its first Spanish colonists in their treatment of the native races, we could look with no satisfaction or well-grounded hope on states thus founded in iniquity. But if by this intrusion of the vigorous races of Europe, industrious millions, enjoying all the advantages of cultured refinement, are to replace scattered tribes of savages living in aimless strife, the most sensitive philanthropist must be satisfied if, in addition to this, he can recognise a process going on whereby even the displaced and superseded aborigines are not wholly excluded from a share in the advantages of such progressive civilisation, or even from exercising some influence on its development.

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